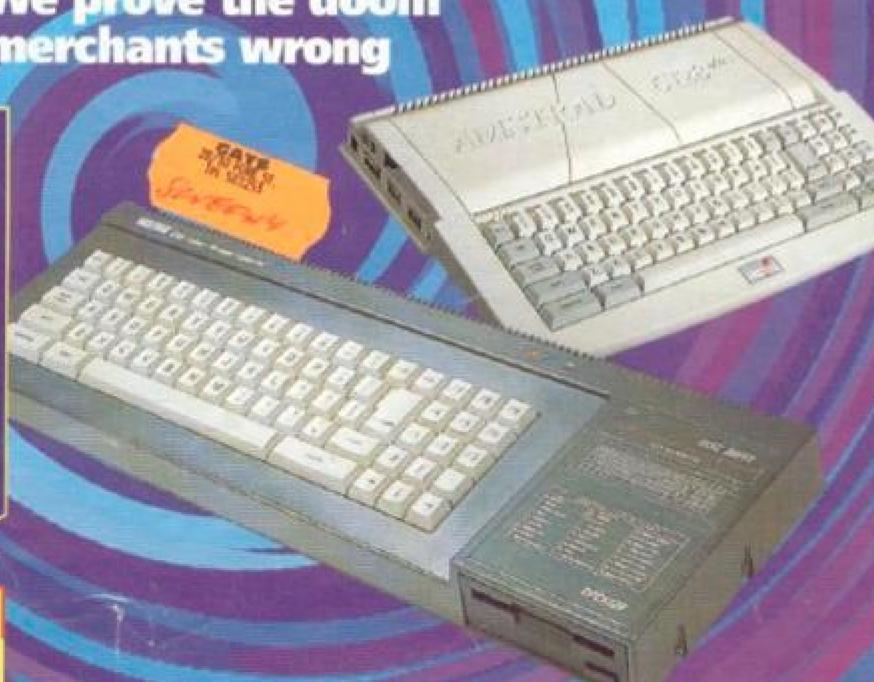
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AMSTRAD ACTION

ISSUE No.91
April 1993
£2.95

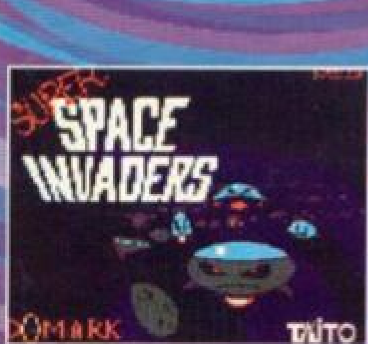
The CPC's Wonderful Future

We prove the doom merchants wrong



£30 worth of great software
Tasword
Colossus Chess 4





Reviews of Super Space Invaders DJ Puff and Playdays. Plus: get hacking with HackIt – serious kit!

● TOP TIPS ● FIRST REVIEWS ●
● BEST ADVICE ●



CPC



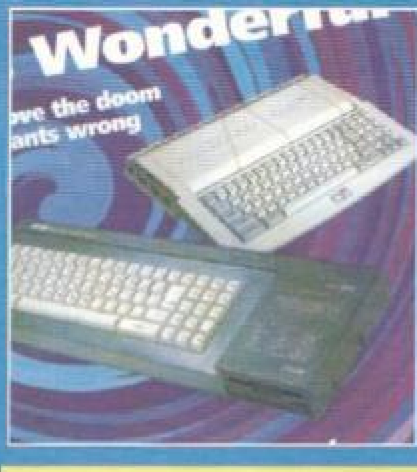
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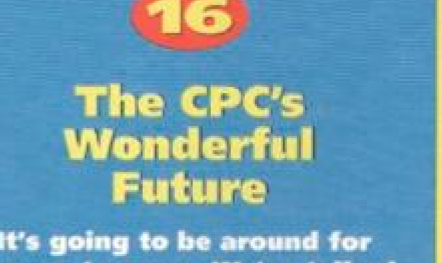
NOT an official Amstrad publication!

Line u

Serious

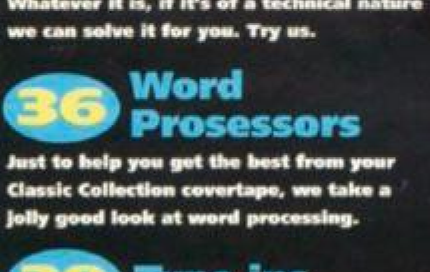


Main feature



Space invaded superbly on page 65.

Frivolous



Live and learn – Playdays on page 48.



No, really, there's hip dragon on page 64.

Regulars

CLASSIC COLLECTION

And here it is... (fanfare and flurry of drums) The Amstrad Action Classic Collection.

Every month we'll bring you a covertape filled to the brim with classic software.

We're kicking off with a couple of corkers.

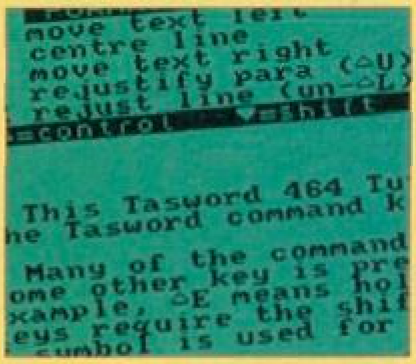
TASWORD

Word processors are marvellous things. It's been said many times that everyone has at least one novel inside them. We're not convinced, but we're sure that there's a couple of short stories, a snotty letter to the bank and an article for Amstrad Action lurking deep within each and every one of us.

Until now, the major problem has been trying to coax this wealth of sparkling literary talent out into the open. But no more. With Tasword there'll just be no stopping you.

Essays on the futility of shopping, letters on the futility of waiting in for the gas man, short stories on the futility of writing to the gas board – they'll all come flooding out. People will marvel at the new, creative, you... (I say, steady on. It's just a word processor, after all. It might be a really great, feature-packed word processor that'll make writing easier and give everything you write a really professional appearance by allowing you to print your work out on alsmost any printer, but it's a word processor, not a new way of life. – Act Ed)

It also makes great coleslaw (No, that's a food processor. – Act Ed)



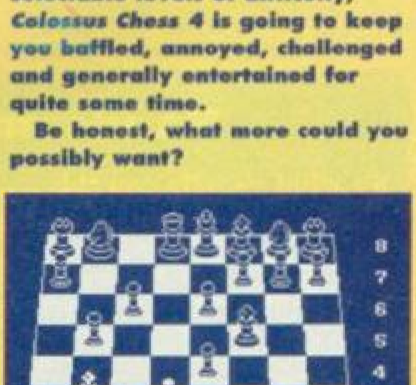
COLOSSUS CHESS 4

Never before has a chess game been so awsomely life-changing... *(You're doing it again, aren't you? It's a chess game. – Act Ed)*

When you've finished your work, beaten up a few computerised bad guys, shot a few computerised aliens and generally had a pretty non-intellectual time of it, stretch your mind a little with one of the oldest strategy games around. After Noughts and Crosses, this was the first game anyone ever taught a computer to play, and they've been practicing. While we weren't looking, the computers have been secretly improving their game and now they can beat us.

With great 3D graphics and selectable levels of difficulty, *Colossus Chess 4* is going to keep you baffled, annoyed, challenged and generally entertained for quite some time.

Be honest, what more could you possibly want?

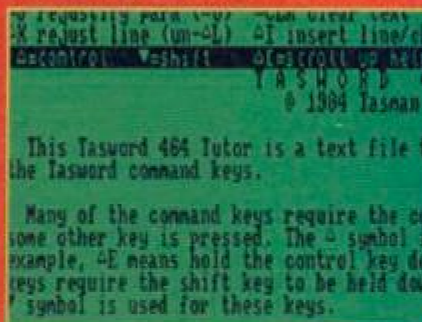


Just turn the page for all the details → → →

CLASSIC COLLECTION

Tasword 464

It's official! It's issue 91, and it's got to be the best covertape ever! We've got one of the best pieces of serious software ever released on the CPC, and as if that wasn't enough, there's a great game as well! So if you read the last issue, you'll realise Colin Campbell was right in his letter. This is going to be a truly meaty covertape. The first side contains an excellent word processor from Tasman software, called Tasword, normally retailing at £24.95. When asked how many copies of Tasword he's sold, Robin Thompson of Tasman says it's so many he'd rather not have to ever find out. These are people who have to archive their sales details!



The text just appears on the screen and you change it around at your leisure.

Tasword 464

Now... Before all you 6128 owners start screaming blue murder about being left out, actively discriminated against, raided at dawn, etc, then worry ye not. *Tasword 464* can be transferred to disc, and used on a disc machine, be it 464 or 6128! You can also find details of *Tasword 6128* elsewhere on this page, if you want an even more powerful version!

There is one slight hassle though, and that's a compatibility problem with the 464 plusses. However, don't feel ripped off, because we've got a crack *(Or cracked. – Act Ed)* team *(Of one. – Act Ed)* working on a modification for the plusses, so hold on to your copy, whether you can use it right now or not, because it won't be long before we've got a modification that'll do the business for you too.

Now... For all those who haven't seen or used a word processing package before, these packages, in conjunction with a printer, replace the need for a typewriter, by allowing you to type your essay, letter, thesis, or magazine article on a screen, and print it out after you've finished the whole thing. You can make all the corrections, re-writes and general changes of mind you want without having to commit yourself to paper until the last moment. And when you do decide to print out your masterpiece, you can make sure it's laid-out exactly as you want it.

These days, almost everyone seems to be using a WP. For instance – all the words you read in this and almost every other magazine were originally cobbled together on a word processor. They make good-looking documents very easy to produce. Whether you're complaining to your bank, working on an important academic thesis, writing a hit TV show, or just writing for fun, you'll find it neater and easier with a WP.

You can change any part of the document without having to re-type the whole thing (as you would with a typewriter) and without messing

Tape To Disc

If you're a disc drive owner, and you'd care to transfer the contents of this tape to disc, it's very easy. You simply run the program called "TRANSFER.BIN" that can be found on the end of side A (after the *Tasword* tutor file), and follow the on-screen instructions.

Handsome Features

So what exactly can this word processor thing do for me, then?

Automatic word-wrap – When you reach the end of the line, the words automatically go onto the next line if they don't fit. No more hoping that words are going to fit, finding that they don't, and then rubbing them out and putting them on the next line.

Right Justification – Your left margin is always straight, but the right margin is all jumbled and higgledy-piggledy. If you don't like that then you can ask *Tasword* to make sure the right margin is straight too (it does it by automatically inserting spaces).

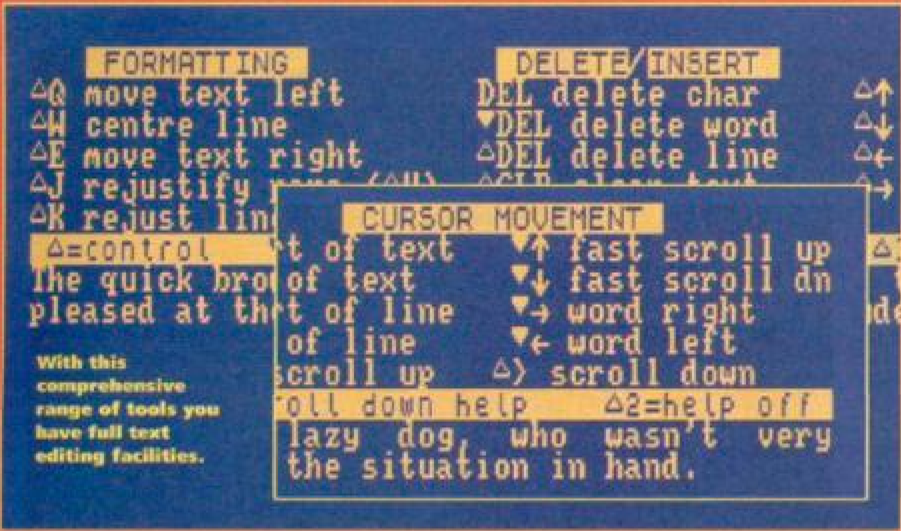
Insert Characters – You've written 'Dear *AA*' but you decide that 'Amstrad Action' would be better. No problem. Just go back and insert the 'mstrad' between the two As. Once again – no more correction fluid.

Move, Copy and Delete blocks of text – Everything's okay, but it would be better if you asked how the cat was getting on before you told them about your new washing machine. No problem. Mark the paragraph about the cat and move it so it's before the one about the washing machine.

Find and Replace – You've written to *AA* and you refer to the Acting Editor as 'Mr Norris'. Then you decide to call him 'Tim'. No problem. *Tasword* will automatically find every time you used 'Mr Norris' and change it to 'Tim' for you. And, of course, it will re-flow all the other words so that they still fit neatly on the page.

Page Numbering – Counting? Thing of the past. *Tasword* counts pages for you and will print the numbers on the page if you want it to.

Headers and Footers – Do your pages all need to say the same thing at the top and/or bottom? Still no problem. *Tasword* puts it there for you automatically.



With this comprehensive range of tools you have full text editing facilities.

around with that gooey white correction fluid.

Now, you don't need several thousands of pounds worth of professional computer to run a word processor. These have been around for a long time on machines like the CPC, for both disc and tape users. And though they may not have all the advanced features of some machines, they can still be an extremely valuable writing tool. A while back, *AA* was written entirely on CPCs.

So anyway, all this aside, we've decided to provide you with a copy of the type of word processor used for *AA* way back when. You can do all the normal word processory things on *Tasword*, changing the document as much as you want, and when you're finally happy with your skilfully crafted prose, you can output it to a printer (if you've got one), as well as saving it to tape or disc, enabling you to recall your work at any time, and change it for other conditions.

Loading It Up

Dead easy, this: Type `RUN "TASWORD.BAS"`, and press RETURN! If you're using a tape, you don't even have to specify a filename! Just press CONTROL and the small ENTER key!

For full instructions on how to use *Tasword*, you must load the tutor file that's also on the tape. This is easily done.

When the word processor has loaded, hold down CONTROL and press the larger ENTER/RETURN key. This takes you through to the filing menu.

Select 'Load text file' by pressing L, and press ENTER. Enter the filename TUTOR and press ENTER. Wait a while, and the tutor file should have loaded from tape or disc.

Now, all you've got to do is read what's on your screen, and follow that for an in-depth guide to *Tasword*.

Tasword 6128

***Tasword 464* is all very well, but owners of 128k machines will want to use that extra memory to it's full capacity. They can get a copy of *Tasword 6128* from Tasman for only £29.95! You can find their address elsewhere on this page.**

Get Yer Luverly Manuals Here!

Want a full *Tasword* manual? Simple. Tasman will sell you one for a mere £2.50, and a nice wallet for the cassette and manual for a further £2.50. You can find them at the following address:

Tasman Software
Hilton Court
2 North Hill Road
Leeds
LS6 2EN



You have almost total control over every aspect of the document's layout.

Sorry 'n'all that

The one thing you have fallen slightly short on this month is the usual collection of reader type-ins. The main reason for this is that when deciding what had to go, to make room for everything else, the Type-Ins were deemed the least important – you could just look back a few months, and type them in yourself.

Send it in!

One final thing, before we go... If you have written any software that you think is either too long or too good for a simple type-in, then please send it to us marked 'Covertape Submission', and we'll consider putting it on... We'll pay quite handsome sums of cash as well... ●

Read this now, or no one will listen when you say your tape doesn't work.

Just pop the tape into your machine, making sure it's rewound to the start of Side 1, and then press CTRL + ENTER (or type RUN""), then press any key and the tape will start loading.

Within a few moments you get a menu screen. Choose the program you want using the Spacebar, then hit the RETURN key.

● Note that none of the programs need be loaded directly from the main menu. They can all be run from BASIC. The menu lists them, but you must quit back to BASIC to run them. (Use the RUN"(filename)" command.)

● If you have a disk drive either built into your machine or plugged in, you will first have to type |tape to switch the computer to tape loading. You get the | character by pressing SHIFT+@. Then just proceed as normal.

Duff tape?

We go to great lengths to make sure that our covertapes work properly. However, if you still have difficulty, try this:

● Loading at several different volume levels (if you're using an external tape recorder) ● Cleaning the tape heads. This can be done with any commercially available cleaning kit ● Adjusting the cassette recorder's head alignment. The alignment screw is located just to the left of the tape head, and is usually accessible through a small hole. Turn it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignment is spot on. ● Tapping the cassette gently against a table edge – the spools may be sticking or jammed.

If you still can't get the tape to load then send the tape, along with a brief description of the problem and a sae to:

AA91 Covertape Returns,
Ablex Audio Video Ltd,
Harcourt, Halesford 14,
Telford, Shropshire
TF7 4QD

Want a disk version?

The covertape contains its own tape-disk copying program. To transfer the programs to tape, simply follow the instructions on the tape.

● 464 owners with external 3-inch drives will have no problems, but 6128 owners will need a cassette player with a REM socket. Stopping and starting the tape manually is difficult.

● 6128 Plus owners who've had their machines modified to load from tape can transfer the programs to disk, *but must rewind to the start of the tape again before the transfer starts.*

You can also order a disk version of the covertape from our duplicators, Ablex. Snip off the coupon on the corner of this page and send it with a cheque/PO for £2.00 to:

AA91 Disk Offer, Ablex Audio Video, Harcourt, Halesford 14, Telford, Shropshire TF7 4QD

Those nice people at Ablex also have some blank 3in discs which they're offering for just £6 for 5. Bargain!

Disk 91 Token

Colossus Chess 4







And when the novel's written why not sit back and have a nice relaxing game of chess?

It's time for a total change of pace from the usual covertape games. You've had shoot-'em-ups, beat-'em-ups, drive-'em-ups, and all manner of mindless fun. So now, the mould-breaking *AA* brings you a world-beating *think-'em-up! Put down that gun and wipe the* floor with someone using a chess board!

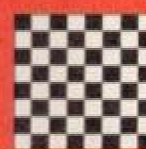
The one terrifying fear when writing these instructions is the hideous prospect of cramming the entire rules of chess into a few hundred words. We thought of just throwing in a few random technical-sounding terms to confuse you all, and make you feel desperately inferior. Casting, en passant, king's pawns, and scholar's mate. There. When someone wearing brown corduroy trousers and glasses asks you if you can play chess, reply either 'No, I don't like Andrew Lloyd Webber', or recite those terms. And they say computers aren't educational...

Ah, yes, but joking aside, we really haven't got room for the full rules except to say that the little ones are useless, the ones that look like horses move in a funny way and you have to surround the king (the big one with a cross on his head) but you can't actually kill him. The winner is the person who makes the most outrageous demands and complains most loudly about their opponent's yoghurt.

When you think about it *(Stop all this drivel and get on with the instructions – Act Ed)* Okay, okay, alright already. Dead simple, this. Simply load it up, plug in a joystick, select the piece you want to move (moving the highlight around the board and pressing fire) and the place you want to move it to, and the computer does the rest! What could be simpler? There are also a few keypresses to try...

SPACE - Flip between the game and record screens.
SHIFT & G - Machine goes first.
CTRL SHIFT & N - New game

Also, when (and if) you manage to promote a pawn, you will be asked what you wish to promote it to. Press the first letter of the piece you wish (Q for a queen, etc). Okay?



Chess Measurements

Did you know?

- Chess originated in India and was called 'Caturanga'.
- Chess was a dull musical by Tim Rice and those chaps from ABBA.
- Chess was a blues and R&B label, home to legends like Chuck Berry and Buddy Guy.
- The earliest surviving chessmen were Russian and date from 200 AD.
- Chess is televised (no, really).
- British chess champion Nigel Short looks a bit like our Acting Editor and they've never been seen together.
- There are currently only about 100 Grandmasters (players with over 2500 championship points).

Coming Soon!

So – you've had your word processor for only 45p, loved it, and as you're already well aware from Colin Campbell's letter last month and the sheer quality of the tape this month, there has been a massive change in your covertape. Keep an eye out in the future for some of the best classic mastergames ever to see the CPC. We've also got some more top utilities coming your way, hopefully being an assembler next ish. In the mean time, we hope you have loads of fun with Tasword and that it's as useful as we think.

If you have any ideas for what you'd like to see on the covertape, then please let us know, along with the name of the original publisher. Try to pick titles a few years old, as no-one wants to see the utility they've just bought given away completely free one month later.



Tasword 464 * Covertape * Special Offer

You have the program. Now get the manual!

The Tasword 464 manual is full of useful information *including:*

- comprehensive lists and explanations of all the text editing command keys.
- information on printing and how to format your printed output.
- detailed explanations of the options in the 'Customise program' part of Tasword.
- and many more tips and suggestions to help you use Tasword effectively.

Only £2.50 including postage and packaging.

And get the program wallet!

A plastic wallet to keep the manual and program cassette or disc together. The wallet opens like a book to give you a sleeve to hold the manual on one side, and a holder which takes either the program cassette or disc on the other side. Stores neatly on your bookshelf for easy reference to the manual and protection for your cassette or disc.

Only £2.50 including postage and packaging.

With the manual, wallet and free cover tape, a package that normally retails at £24.95 is yours for just £5.00!

Please tick box(es) for items required:

Tasword 464 program manual	£2.50	
Tasword 464 wallet	£2.50	

Have you ticked one or both boxes?

Name: ______________________

Address: ______________________

____

____

Postcode: __________ Computer (please tick): 464 [ ] 664 [ ] 6128 [ ]

Send to:

Tasman Software Ltd.
Hilton Court
2 North Hill Road
Leeds LS6 2EN

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Please enclose a cheque or postal order payable to Tasman Software Ltd.

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Amscene

Amstrad news, views and acting editors



Welcome

I'm Tim Norris, the brand-new Acting Editor, and it's my pleasure to be able to say, 'Welcome to the new-look Amstrad Action.' There's a new-look Acting Editor (me, of course), a new-look cover, a new-look covertape and...

...and, in fact, things have changed very little. You may have been a little concerned by the rapid staff changes and the arrival and rapid departure of Linda Barker (who, in case you haven't been following these things, was just settling in when she was suddenly and unexpectedly offered the chance to edit our sister magazine, Amiga Power – an opportunity not to be missed).

But fear not. We may be new round these parts but we're none of us strangers to *AA* and we're all determined to maintain the extraordinarily high standards that have been set by the magazine over the last six-and-a-bit years.

We'll still be bringing our famous blend of advice, tips, opinion and poor jokes. We're well aware that many of you are new to computers so we'll continue with our tutorials and introductions too. We don't understand any of that techno-jargon wibble so we don't use it.

There are those that say that there's no future for the CPC and that it's a dying, if not dead, machine. We say 'cobblers'. As long as there are dedicated users like you there's going to be a CPC, and as long as there's a CPC there's going to be Amstrad Action.

In our cover feature this month, we spoke to just about everyone who has anything to do with the Amstrad and they all said the same thing: We're here to stay.

Oh, and in case you don't spot it, the sub-theme of this issue is 'get involved'. There's a wealth of talent and enthusiasm out there and it doesn't take much effort to get in there and be part of the CPC scene.

So, now that we've got that straight, we can get on with the good stuff.

We've got part one of a guide to machine code and assembler. Then you can add a disc drive to your 464Plus. And if that wasn't enough we've got two (count 'em) great competitions.

Go. Read. Enjoy.

Spectravideo Caught Pedalling

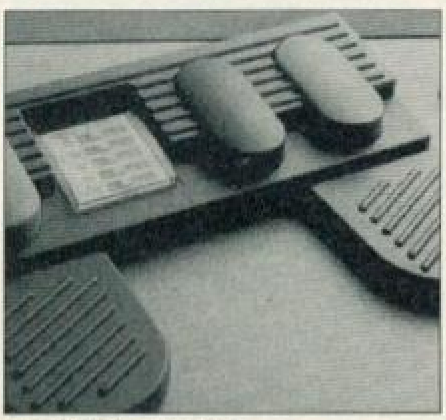
The Foot Pedal – Spectravideo's amazing 'feet' of engineering (it says here) is now available for £24.99

It's a games controller with three foot pedals which can be programmed to take the place of three of your joystick's functions to add extra realism to all those driving games and flight sims. Use the pedals for accelerating and braking and leave the turning to your joystick. We've seen one in action and all you do is plug the Foot Pedal into your joystick port, plug your joystick into the Foot Pedal, define which pedals will do what and off you go.

They tell us it's just the thing for something like *Nigel Mansell's World Championship*. Or how about trying to control your favourite platform game with it, just for the extra challenge?

If you want to know more, contact Spectravideo on ☎081-902 2211

Whatever will they think of next?



A Foot Pedal, yesterday.

It's patently obvious

The Patent Office is concerned that Britain's businesses may be losing out because they fail to patent their inventions.

To help combat this they're launching a series of teaching programs aimed at industry and commerce, higher education and the legal profession in an attempt to increase people's awareness of the patent procedures.

Unfortunately the programs are on CD ROM so they're not much use to us, but it has made us wonder if any of our readers have invented anything. If you have, have you patented it? You should - there's money to be made in patents and there's no point in letting it go to someone else.

So if you need any general advice about patents, contact:
The Patent Office ☎0633 813535.



Don't panic, Dizzy will be about for a while.

Those Codemasters

We've learned that those nice Codemaster chaps intend to pull out of the CPC market. Dizzy's creators have decided gradually to wind down their 8-bit operations and will eventually stop producing games for the 8-bit machines altogether.

It seems there wasn't enough money in it for them and they're going to concentrate their efforts on the 16-bits and the consoles. There's still plenty of Codies' stuff about, though, so we'll not feel the loss quite yet. They'll be missed.

New on the scene

We've just learned of a new outfit called 'Creative'

who are offering a few good deals on CPC software. There's Protext ROM for £13.99, Maxam ROM for £12.99 and if you want your system cleaned out they'll do that for £11.99.

It's all run by a chap called James Hockney, who also runs a fanzine called 'CPC Now'.

Call him for more info on 0353 663030.

Oh well, That's Life

You may remember a story recently on That's Life a little while ago about people who had bought the GX4000 games console but were now hideously upset that they couldn't get any software for it. A terrible state of affairs, as everyone agrees.

Ah, yes, but we've heard from Richard Gandy who tells us that he's got the biggest stock of software in the world, including stuff for the CPC, Speccy, the BBC and – even – the GX4000.

He's been in touch with That's Life to let them know and he decided to tell us as well.

We can't actually verify his 'world's largest stock' claims, but if there's something you've been after for some time and you want to put him to the test, you can reach him on 0628 891101.

He's one of the CPC's most fervent supporters and he, along with most of the people we spoke to when we were compiling our Wonderful Future feature, believes that the CPC is going to be around for ages.

We think he's right.

AI Flooded!

A while ago Artificial Intelligence, the popular PD fanzine, stopped providing coverdisks.

Unfortunately, there are still a lot of AI readers who haven't cottoned on to this and they're still sending in disks. The upshot, according to Tim Blackbond, is that AI Towers is knee deep in blank discs.



Relieve yourself (comically, of course) with a firmware guide. No, really.

So could AI readers please stop sending in disks for their cover software, as it's no longer available.

Comic Relief

Sounds like SLPD are getting into the Comic Relief theme of things by distributing that classically humorous publication, Soft 968 – The Firmware Guide.

It's on sale from the boys for £20 plus £2 postage and packing. Cheap sales gimmick it is not. SLPD are contributing £5 from each copy sold to Comic Relief.

Watch the press for news of Amstrad's warehouses being ram raided... Oh yeah, they're also offering FREE PD copying if you send a disc.

SLPD are at:
Dromore House
6 Keyberry Park
Newton Abbot
Devon
TQ12 1BZ.

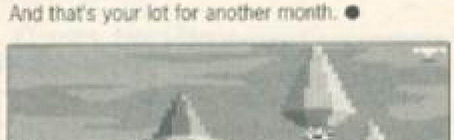
Zap'T'Balls

Oh deary me. There appears to be some hideous mix up over the issue of the popular *Pang* clone. Here it is, once and for all, to set the record straight. *Zap'T'Balls*, the demo version, is public domain. You can tell this by the message "PD - Please Copy" on the loading screen.

Zap'T'Balls - The Advanced Edition (reviewed in ish 89), distributed by Sentinel, is not the PD version, but the hugely massive, full and entire *(I think they get the point. – Act Ed)* commercial version.

However, if you would like the PD version, the Sentinel can supply you with one if you send a disc along to:
Sentinel Software
41 Enmore Gardens
East Sheen
London SW14 8RF

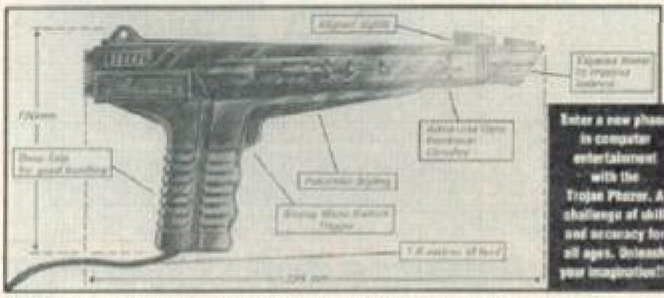
And that's your lot for another month. ●



Architectural action in Zap'T'Balls

TROJAN PHAZER GUN FOR GX4000/464+/6128+

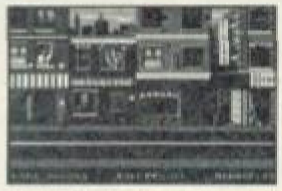
(RRP £34.99) OUR PRICE £29.99



Phazer Gun plugs straight into analogue port (next to joystick port). Comes complete with SKEET SHOOT CARTRIDGE.



SKEET SHOOT consists of 6 levels, each broken up into two normal rounds and one bonus round. See games review in Amstrad Action - Feb '93



ENFORCER CARTRIDGE. Your job is to gun down the bad guys as they pop up, but not civilians.
PRICE £14.99

AMSTRAD GAME CARTRIDGES FOR 6128+/464+/GX4000

TITLE	BOXED WITH INSTRUCTIONS	UNBOXED NO INSTRUCTIONS
Klax	£24.99	£14.99
Pro Tennis Tour	£24.99	£14.99
Batman	£24.99	£14.99
Operation Thunderbolt	£24.99	£14.99
Barbarian II	£24.99	£14.99
Navy Seals	£24.99	£14.99
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MODE 2: Full, unimpeded use with Rodos, Romdos, Romdos and Romdos XL giving up to 800k per disc without the need to use the SIDE SWITCH. The statement elsewhere that "other drives . . . will only allow you to access 400k at a time" is a lie as many who have resorted to adding their own side switch to inferior drives can confirm. Full use of MS800, the no.1 high capacity formatter - 800k per disc or 400k per side. MODE 1: works as a complete alternative to the FD1 B drive - 180k per side. Without the side switch, mode 1 is not possible.
OVERALL: Ultra quiet TEAC mechanism, the type used in most professional computers; super small; separate power supply; sleek metal case. You need to buy nothing else to use your drive immediately. MS800 is supplied on disc and ROM whether or not you have a Romboard - see the *ROMBO DISCOUNTS*.

464 PLUS 1st drive - see this ad.
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Please state your computer model when ordering.

£79.95 complete

MS800 is the number one high capacity formatter, allowing up to 800k storage per 3.5" disc. It is the ONLY one that doesn't need to be present for its discs to be used, the ONLY one that is compatible with all software including CPM, the ONLY one that uses no memory whatsoever, the ONLY one that can use its discs in drive A (ABBA switch users, please note), the ONLY one that works with the Plus machines. It is supplied with its own copying utility and a menu program that allows many tape to disc transferred games to run from drive B. Check these features against any alternative and you'll see why MS800 is simply the best.

MS800 disc or ROM	9.95
MS800 disc and ROM	14.95
ROM for disc owners (proof needed)	3.50

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Exceptionally good tape to disc transfer utility, very large on-disc database of verified transfers. Produces stand-alone transfers.

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Fast, flexible Database, superb pools predictor, screen and sprite designer.

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ABBA SWITCH	12.95
SIDE SWITCH (kit)	3.00
SIDE SWITCH (plug-on)	5.95
ABBA & SIDE combined	14.95
DRIVE ADAPTERS	various
ROMDOS (ROM only)	9.95
Amstrad FD1 3" B drive	79.95
3" Amsoft discs (10)	20.00
3.5" discs (10)	7.50
3" individual disc case (10)	5.95
3.5" locking disc box (40)	7.95

The switches, which can be daisy-chained, plug onto the 6128 or 464 drive port and the drive(s) plug onto the switches. The 3rd DRIVE SWITCH allows 2 external drives to be connected and selected at will. B to B copying is OK. The ABBA switch logically swaps the internal and external drives around so that A becomes B and vice versa. The SIDE SWITCH gives the Dual-Mode feature to a double headed drive. DRIVE ADAPTERS allow CPC drives to be used on other machines, e.g. PC, PCW, ST, Amiga.

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	D.I.Y. kit	Done by us
464 PLUS		
Extra 64k	15.00	25.00
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6128 PLUS		
Tape with remote	18.00	30.00

(tape recorder not included)

* Together with the 3.5" drive, this is the lowest costing 1st drive by a very wide margin.

Please write or phone for details before sending your computer.

AVATAR

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BIGGER BETTER MORE

MORE OF THE WONDERFUL WORLD OF UPGRADES

If all went well last month, you should now have a 464 Plus with an extra 64k of memory. Warm up that soldering iron again because here comes Phil Craven with details of how to fit a disc interface to your 464 Plus.

Last month we saw how to add the extra 64k of memory to the 464 Plus computer to put it on a par with the memory of 6128 Plus. I trust we all performed the operation without a hitch.

This month we're going the rest of the way to turning your 464 Plus into a 6128 Plus, or what I like to call a '464 Super Plus', by adding the disc drive interface and disc drive.

I call it the 'Super Plus' because, when complete, it is actually better than the 6128 Plus in that it has everything that the 6128 Plus has, and it has a tape deck. 6128 Plus owners get the opportunity to strike back next month when we'll show them how to add the tape in/out with remote facility.

In case you missed last month's issue, the 464 Plus and the 6128 Plus have identical circuit boards. The difference between them is that the 6128 Plus has its extra 64k and disc interface components fitted where the 464 Plus has tracks and empty holes and the 464 Plus has its tape components fitted where the 6128 Plus has tracks and empty holes.

Since they both have the same system ROM, fitting the correct components into the correct holes quite literally turns one model into the other. The only differences then being that one has its tape deck built in and its drive on the outside and the other has the opposite.

It's possible to add an extra 64k and disc interface to the outside of the 464 Plus but the beauty of putting them onto the computer's circuit board, where Amstrad designed them to be, is that they're neat, out of sight and a heck of a lot cheaper! The plug-on 64k costs £39.95 to buy, and that's a discounted price, but we did it last month for around a tenner. The plug-on disc interface costs around £90 but we're going to do it for a mere £25.



Chips with everything

Speaking of which... When researching this project I found that CPC of Preston, Amstrad's parts distributor, is the only source in Europe for one of the required chips, the SED9420CAC. For a user to buy it there would cost almost £28 plus delivery! And that's just one chip. Fortunately, it's available as part of Avatar's disc interface kit and Avatar have agreed to supply the whole kit of parts for this project at £25, including carriage. This is lower than their normal kit price but it won't include their normal bells and whistles (instructions, etc.) so, when ordering, be sure to specify that it's the kit for the Amstrad Action project or you might be charged an extra fiver.

Look before you leap

Before you rush to buy the kit, have a look at what you'll need to do. If you think you can do it, then go ahead. If not, but you still want it done, see Avatar's ad. So let's get to it.

Open the box...

Separate the computer from the monitor and remove all peripherals, including the cartridge and tape.

Turn it over and take out all six screws. Notice the three catches, one at the front and one on each side. Turn the computer the right way up again and undo the catches by pulling the front one towards you and the side ones outwards. Open the tape cover (press 'EJECT') and the computer's top will fold back and away from the bottom. It is still connected to the bottom so don't whip it away. →

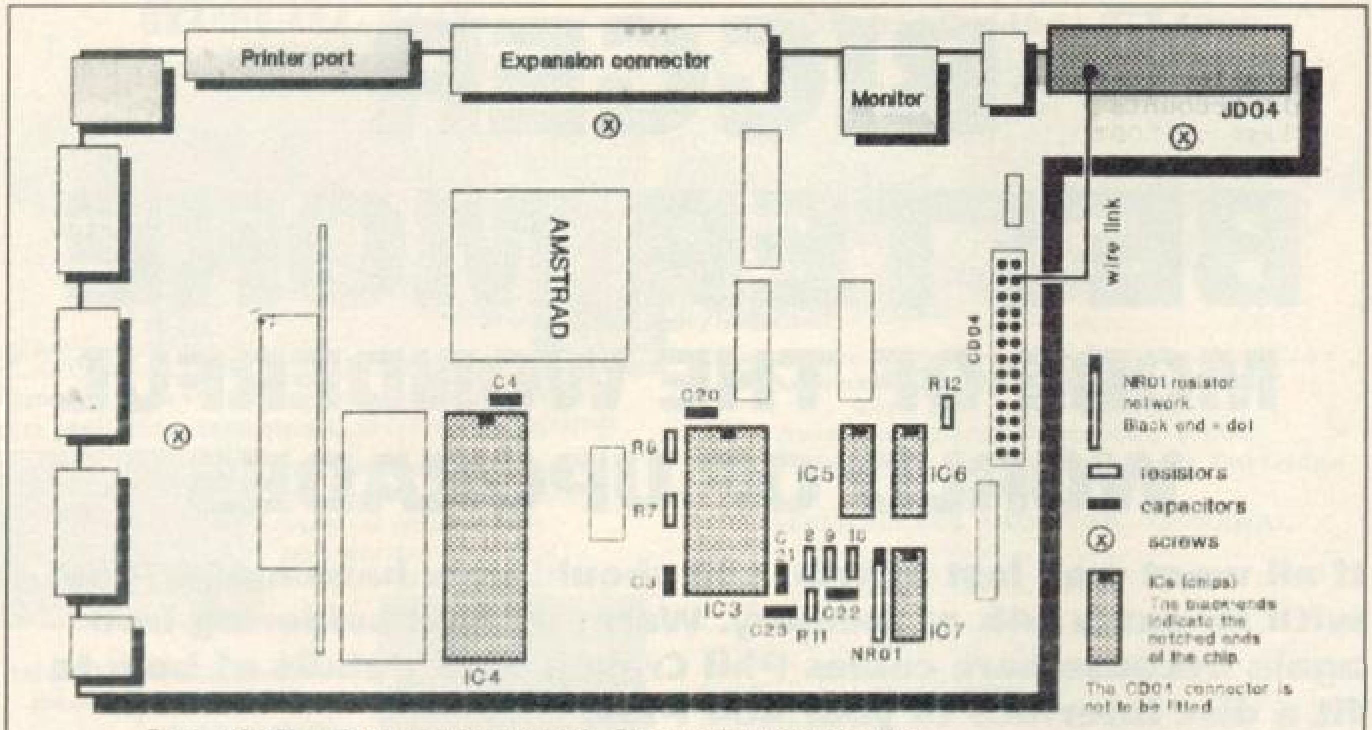


Fig. 1 464 Plus circuit board showing the Disc interface components

...and take a look inside

At this point, pause a while, study and compare the diagrams with the circuit board, read through this project and become fully familiar with what you will need to do. If you think it is beyond your capability, now is the time to close up the computer. If you've bought the kit, contact Avatar who will help.

Fig.1 represents the whole of the circuit board with a few major components shown. The bold and shaded components are the five chips (ICs 3 to 7), the connector (JD04), the wire link and the various resistors and capacitors that need to be fitted. You can see the holes in your actual circuit board for each of them. If you look closely, you can see that all the holes have been filled with solder which needs to be removed before the components can be soldered into place. If there's a boring part to this project, it's removing the solder but, when done, the project is almost finished. Don't make the mistake of trying to solder the IC sockets into place without first removing the solder. I've seen it done and although it looked alright the project didn't work. That method can be done with the resistors and capacitors but not with the chips. Maplin and Tandy sell low cost solder suckers.

Fig.2 shows the main components to be fitted in actual size and Fig.3 shows the detail of the JD04 disc drive connector.

Remove the board

Disconnect the two pair of wires that join the computer's top to the circuit board. Notice that they are colour coded. The yellow wires with the black socket go onto the black plug and the blue ones onto the blue plug. You'll need to reconnect them correctly when the job is done. Pull the tape connector and keyboard's 'film' connectors up to remove them from the circuit board and take out the three screws that hold the board to the base – see Fig.1.

Remove the board from the base but take care not to handle any components. It is rare these days to zap components by the body's static electricity but it is better to err on the side of caution.

In choosing a suitable place to work, remember that the pins on the underside of the circuit board scratch polished surfaces. You have been warned.

Remove the solder

Suck the solder from all the required holes. If you haven't done this before it will take you a few holes to get used to but then it's easy. Hold the sucker poised close to a hole and, with your soldering iron, melt the solder inside the hole. When melted, quickly move the sucker over the hole and press the sucker's button. Most holes will clear in one suck but don't waste time redoing those that don't. Wait until you've done all the holes of one chip before going back to the ones that didn't clear and then fill them with solder before sucking again. It is easier to clear a hole full of solder than a partially filled hole. If the coil component is in the way of the JD04 holes, pull it away from them.

Clear all the holes for IC3, IC4, IC5, IC6, IC7, NR01 and JD04. It is best also to clear the holes for resistors R6, R7, R8, R9, R10, R11 and R12 and capacitors C3, C4, C20,and C22. Capacitors C21 and C23 have a wire already in one hole and can be treated differently.

Fit the IC sockets

Solder each of the IC's SOCKETS into place. Push a socket into its holes, turn the board upside down and solder each of its pins.

When you're doing this, bend a couple of corner pins over before turning the board upside down to make sure that the socket doesn't slip back through the holes.

Don't insert the chips into the sockets just yet.



Fig.2

Fit the other components

Solder all the CAPACITORS and SINGLE RESISTORS into place. They are of different values so use the parts list to get the right one in the right place but they can be fitted any way round. It doesn't matter which of their pins go into which of their holes. C21 and C23 each have a wire soldered into one of their holes. Rather than remove the wire, solder the capacitors to the underside and bend them flat against the circuit board.

Solder the 36 way centronics connector into JD04. It is alright for the coil component to rest on JD04's pins. It looks as though it would conduct electricity but it won't.

NR01 is a RESISTOR NETWORK and must be fitted the right way round. It has a dot at one end which must point towards the back of the computer. Fig.1 shows the dot as the black end of NR01. Fig.2 shows it separated by a thin line. It can now be soldered into place.

The WIRE LINK is what allows the computer to use a drive A. Without it, only drive B would be recognized. One end solders into the hole in CD04 as shown in Fig.1 and the other end solder directly onto JD04's 5th pin on the top row. JD04 has two rows of angled pins, one above the other. The wire link should be soldered to the top row and to the 5th pin along from the left. Fig.3 shows it in detail.

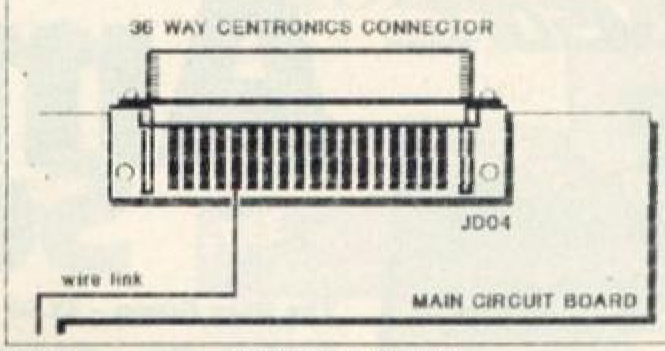


Fig. 3 DETAIL OF WIRE LINK

Fit the chips

The chips can now be pushed into their sockets. See the parts list to get the right ones into the right sockets. It is very important that they are inserted the right way round. Each chip has either a half moon shaped notch or a corner dot at one end only. That end must be towards the back of the computer as shown in the diagrams. Most chips are supplied with their pins splayed outwards. many will fit straight into a socket but some won't. The quick way to straighten those that don't is to bend a whole row at a time by resting the row on a hard surface, holding the chip by each end and bending them inwards – to about a right angle.

Just cut a little slot

The upgrade is now finished but there's one thing left to do. A slot must be cut out of the top casing for the JD04 connector to poke through. If you look closely at the back of the case, you will see two lines moulded into it. These are exactly where you need to cut so cut down them to about the same depth as the slots for the other connectors. Deeply score a line between the two cuts with a Stanley knife or similar and break off the unwanted bit of casing with a pair of pliers. Use the knife six or eight times to get a deep enough score. Any tidying up that's needed can be done with a file.

Put it together again

Now you can put the whole thing back together again not forgetting to reconnect the black earth wire from the tape deck as you screw the board onto the base. The copper leaf springs should rest on the underside of the keyboard so, if they have been bent down during the operation, bend them back up again.

When the computer is back together, but before the six screws are put back, try to close the tape lid. If it won't close without pushing on the JD04 connector, you will need to cut away part of the plastic on the left side of JD04 to allow the tape lid's lever to move freely.

Is that it, then?

That's it. All done. But if you need technical assistance, phone 0274 602180. If the project is done according to the instructions, it will work. However, neither AA, nor Future Publishing, nor the author can accept any liability or responsibility for what a person might do inside the computer in the course of carrying out this project.

Disc Drives

Now, the 464 Plus is capable of accessing two disc drives. The first should, obviously be the A drive and, for that, you can use any of the three main sizes:- 3", 3.5" or 5.25".

Most CPC disc software is only available on 3" discs but 3" drives are difficult to get. 5.25" drives are a bit old hat but the popular 3.5" is widely available. Whether to search for a 3" or go straight for a 3.5" depends entirely on the user. Games players should try to find a 3" but serious users can usually manage with a 3.5".

Disc prices should also be considered. 3.5" discs cost a fraction of the price of 3" ones and can hold twice as much data. Whichever size you opt for, be sure to tell your supplier that you want an A drive. Amstrad 3" drives are fine as they are, even if they've been used as B drives, but 3.5" ones are normally dedicated B drives unless specifically altered to be A drives. The 36 way centronics JD04 connector is identical to that used on the 6128 Plus but you need to make sure that your supplier can supply a drive to fit the Plus computer as distinct from the older CPCs which have different connectors. Not only that but you need to make sure that your supplier knows how to put the connector onto the drive's cable for the Plus computer as it is done in an unexpected way. Any disc drive retailer, advertising in *AA*, knows how to do it.

Adding a B drive isn't quite as straight forward since there's only one JD04 connector but it can be done by using a custom-made drive port splitter which would convert the one JD04 connector into two connectors. ●

PARTS LIST

IC3	SED9420	and socket
IC4	UPD765	and socket
IC5	74LS38	and socket
IC6	74LS38	and socket
IC7	74HC14	and socket
Resistors		
R6	820k	grey red yellow
R7	2k2	red red red
R8	1k5	brown green red
R9	33k	orange orange orange
R10	82k	grey red orange
R11	6k8	blue grey red
R12	2k2	red red red
NR01	8x680r	
Capacitors		
C3	0.01uF	red
C4	0.1uF ceramic	
C20	0.01uF	red
C21	0.047uF	red
C22	0.001uF	red
C23	0.01uF	red
JD04	36w centronics connector	
Wire link	- piece of wire	

A word of warning

Never attempt to put an Amstrad 3" drive onto any Plus computer except like this:

With the computer and the Amstrad 3" drive placed back to back with the drive's cable attached to the drive and stretched out between them, the cable should be flat – no twist.

Imagine this arrangement and that you are standing in front of the computer with the disc drive pointing away from you. In this position, the leftmost strand of the drive's cable (call it strand 1) should be cut away so that it doesn't reach the computer. Then the whole cable should be shifted one strand to the left so that what was strand 2 now becomes strand 1 and fits onto pin 1 of the 36 way centronics connector, leaving 3 unused pins on the right of the connector.

That's the way to connect any standard drive to the Plus computers. Most drive's can be connected wrongly without causing any harm but if the Amstrad 3" FD1 or DDI-1 drive is connected wrongly it will kill the 6128 Plus' internal drive instantly and could damage the 464 Plus.



Amsoft Software

The User Group – £1.50 each + P&P

Suddenly Simon Forrester disappeared under a pile of huge and expensive-looking blue boxes. The Amsoft software had returned.

Remember the old days, when Amsoft sold software in nice big folders, with nice big boxes, and charged a small fortune for them? The User Group have decided to let the world relive those days, by selling the titles again – but this time at only £1.50! There are quite a few titles in the range, all written specifically for the CPC464. Those marked with a star (★) are also compatible with CPC6128s, though Plus compatibility has proved to be a problem.

Amsword ★

This was probably the first word processor to hit the CPC. Though it doesn't have the sophistication of some of the hideously expensive word processors available, it'll do for the absolute novice, and provide a nice introduction to the world of word processing – and even though it's the perfect opportunity, we're not going to mention *Tasword* being on this month's cover tape.

Chemistry Revision ★

Having hassle with those 'O' levels? Need a helping hand with chemistry? This was one of the first packages to make use of the CPC as an educational tool, and could probably still stand you in good stead. It'd probably be worth remembering though, that what was relevant to the 'O' level curriculum back then might not be all that relevant today. Having said that, you might still find it useful, as chemistry is chemistry is chemistry, and there's always going to be stuff that follows through each exam year.

Decision Maker

High powered executive? Making all those really hard decisions? A complete package, full of various statistical and financial analysis features is at your disposal here. We can't see how it'd really be much use to the man in the street, but to those running small businesses, a decision making package could be a real boon.

Entrepreneur

It's packages like this that gave Amstrad a good name. They proved that all the sales pitching of the CPC as something above the average games computer really paid off.

Entrepreneur is a complete start-up kit for small businesses, containing balance sheets, tax calculations, and pretty much everything a new company will need to get off the ground.

Fig FORTH ★

Oh no! It's FORTH! Billed as 'the language no-one could understand', 'the system no-one could program'. *(In short, the system Simon can't use – Act Ed)* The few of you who can use FORTH to its full advantage should have fun with this package, as it's a pretty complete package, and a nice version of the language.

HiSoft PASCAL 4T ★

Aaargh! It's another one! Put simply, PASCAL is the language to use for applications programming. HiSoft have a reputation for being very thorough with their software, and this version of PASCAL definitely meets their usual standard. For those of you who are still nonplussed by the whole PASCAL bit, *AA* recommends it as a language worth learning.

Mastercalc ★

Spreadsheets like *Mastercalc* have many applications in everyday life. Budgets are planned on them and businesses are run on their results. This is a package that has appeared in many forms on many machines, so when you use it, you know you're not using a cheap imitation.

Physics Revision ★

Like Chemistry Revision, this package still has relevant points in today's GCSE curriculum and might still be worth a punt.

Project Planner ★

This package is definitely worth seeing. It's a system allowing you to plan time and resources for any project you undertake in the most efficient way possible. With graphic representations of time, etc, this package has got to be one of the treats of the collection.

So, in summary, there're some really nice packages here. They may not be the products of the very latest technology, but each is a very competent example of its type and does what it sets out to do extremely well. And for £1.50 each, you can't go wrong.

Where To Go...

The User Group, PRE Complex
Pallion Industrial Estate
Sunderland, SR4 6SN
☎ 091 510 8787

ADVERTISERS INDEX



Future Shocks

Tired of hearing those jibes about how the CPC's going to die at any minute? Simon Forrester is. Read on for the truth about the prospects of your machine. The future starts here...

For 90 issues now, you've read (or had the opportunity to read) Amstrad Action. When the magazine started, it was based on the CPCs, and at issue 91, seven and a half years later, it's still the ultimate CPC peripheral. Issue 100 draweth near, and the CPC is still the excellent home computer it was. So what's happening out there? Will the industry continue it's excellent support? Will AA see issue 100? Will the CPC see 1994? We think so – read on for a nigh on exhaustive feature on the past, present, and future of the CPC.

Let's talk about it...

So just who are all these people who are supporting the CPC? What exactly are their plans for their and the machine's future? Why on earth are they so sure of themselves? We thought we'd give them the chance to say just what they've got in store...

Software Houses

Campursoft have got some really nice stuff in the pipeline. They're planning to put some of the classic serious software onto cartridge for the CPC+ users to use, (which can't help but be good news – we've always thought the cartridge was vastly under-used). If that wasn't enough, they've completed development of a fully operative hard drive. It'll come complete with operating system, and should work as a third drive, with an absolutely huge storage capacity! Campursoft show no signs of letting go either, as they're planning long into the future, and will keep going for as long as there's an audience. Campursoft, incidentally, is run by Pater Campbell, and Jess Harpur. Their Videomaster recently (ish 88) won great acclaim as a suitable replacement for the modulators that Amstrad damned such a long time ago.



Simon Forrester's sound tracker thing. (That's enough free plugs for now. – Act Ed)

Dartsma, like everyone else, are really pulling their fingers out. They're working on a complete new catalogue system, and developing lots of lovely ROM software such as utilities, hardware, peripherals, leads and ribbon cables made to specification, and loads more. Adam Shade, founder of Dartsma (and ex-STS member), has been running his PD library-cum-custom cable makers-cum-hardware suppliers for as long as he can remember. "When the software runs out, we'll just get some more." But what happens when it all runs out? "We'll write it ourselves!"

Phil Craven, long standing member of the

The Ultimate Contact List

In case anything you've seen here sparks your curiosity, we've got the addresses of everybody you've read about so far. You'll never need another contact again...

Alternative Software
Units 5-7
Baileygate Industrial Estate
Pontefract
West Yorkshire WF8 2LN
0977 797777

Avatar
39 Crossfell Road
Leverstock Green
Hemel Hempstead
Herts
HP3 8RG
0442 251705

Campursoft
16 Slatefield Street
Gallowgate
Glasgow
G31 1UA
041 554 4735

Capri Marketing
9 Dean Street
Marlow
Buckinghamshire
SL7 3AA
0628 891101

Codemasters
Lower Farm House
Stoneythorpe
Southam
Warwickshire
CV33 0DL
0926 814132

Dartsma
47 Kidd Place
Charlton
London
SE7 8HF
081 317 3662 (Fax only, folks!)

Epson
0442 61144

Future Publishing
30 Monmouth Street
Bath
BA1 2BW
0225 442244

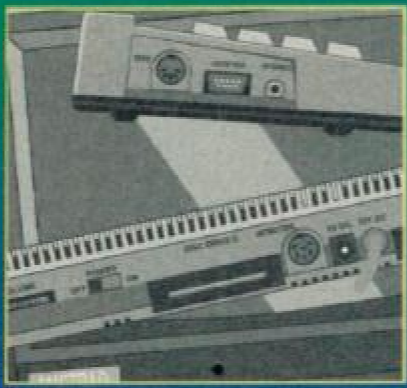
Goldmark Systems
51 Comet Road
Hatfield
Hertfordshire
AL10 0SY

Gremlin/GBH
0742 753423

GVL Microform
191 Watling Street Road
Fulwood
Preston
PR2 4AE

Versatility

The reason the CPCs have been so sturdy in the market place is their main strength – versatility. Whereas other 8-bit machines (Speccy, C64, etc) can only handle games (due to inadequate design for anything else), the CPC's were designed with much better text, disc, and mathematical facilities in mind (as well as good graphics, sound, etc), allowing the creation of word processors, databases, spreadsheets, assemblers, art packages, and so much more. Users can now add 3.5" disc drives to their machines allowing a previously unheard of 800k per disc. They will soon be able to attach a huge hard drive and use that for even more storage capabilities. They can add ROM software to their systems, allowing instant access to a lot of useful software without even having to touch a tape or disc. All this and more came about in a very short space of time. With things progressing the way they are, we should have a lot more innovative hardware by the time we reach issue 100.



CPC community, has given us his assurance that he'll keep developing new hardware for as long as there's a market. Phil doesn't sell direct though – he supplies two companies, being Avatar and GVL Microform, and is responsible for some very innovative hardware. We'll probably have some reviews for you quite soon...

SD Microsystems' Steve Denson is renowned among the programming world (and was quoted in another publication) for his firm conviction that the CPC can do anything a PC can – he runs his business entirely on a CPC, and sells a lot of accounting software that should allow others to do the same. As well as this, he's recently branched out with products such as *Picasso* (an art package), and *BooTracker* (a fabulously wonderful supremely excellent musical package by that wonderful programmer, erm, Simon Forrester). *(Ahem. – Act Ed)*

Sentinel Software of London state that their support of the CPC (that started with *Zap'T'Balls*) will continue for as long as there's a market, and enough software in Europe to import. Sentinel was started recently to cover the import of *ZTB*, by Richard Wildey, one of those who left STS to go it alone. They hope to import as much 'exotic' software as they can in the future. Sentinel would also like to receive contributions from Britain, and are happy to receive as much potential software as possible. In the meantime, they've obliged us with a preview version on *Pro-Ext*, the *Protext* enhancer, allowing graphics and fonts to be used through the *Protext* command system, and it looks pretty good. "As the larger companies pull out of the CPC market, we're filling the gap with software from some of the excellent demo coders overseas."

As a last minute detail, it comes to light that Sentinel will be importing probably the best sound tracker available for the CPC, called (imaginatively) *Soundtrakker*.

Siren Software have stated that they'll support the CPC for as long as they can, and are releasing some hot new stuff to support the fact. Look out for a review of an updated HackIt black (or rather white) box in this ish! *(I thought they'd made it black now. – Act Ed)* Simon Cobb, founder and owner of Siren (who started with Simon's first product, *Tape To Disc*), is adamant that he'll be supporting it long into the future. All his current products (and we advise checking out some of the stuff he's got around) will be on sale long into the future. In fact, he doesn't really see the CPC as dying at all: "Still a damned good machine!" Siren are also ready to welcome any new software that all you budding coders have to offer, so if you've got anything that you think is worthy of publication, get in touch with them.

STS are a group who've been around in some form or other for quite a while now. The group started about six years ago, and accumulated seven members by the time '92 came around. After that, the various members left the programming cum publishing team, to either pursue or continue independent projects. Ex members include Richard Fairhurst (AA's techie bod), Adam Shade (of Dartsma fame), Richard Wildey (Sentinel's founder), Chris Smith (of WACCI), Mike Wheeler (remember 'Broadley Speaking'?), and yours truly.

However, the new twosome are set on producing utilities for as long as they possibly can. They're currently selling an upgraded B-ASIC, yet an even further upgraded S-DOS, and are offering a repair service. "The CPC has →

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Bridgend,
Mid Glamorgan
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0656 740741

Romantic Robot
081 200 8870

SD Microsystems
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East Sheen
London
SW14 8RF

Siren Software
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On The Scene



The CPC scene as we know it is divided into various sects:

The Commercial Industry

These are the corporate figures, who support machines for as long as said machines continue to make money for them. Their support of the CPC is limited in comparison to their support of other formats, as the main commercial criteria for software seems to be suitability for cross-conversions. All is not lost though – read on and you'll see just what a major chunk of the industry supports the CPC.

The Media

During the past seven or eight years, there's been a massive variety of CPC magazines, such as Amstrad Computer User (the official CPC mag), Computing With The Amstrad, Amtix, and more recently, CPC Attack! The history concerning these various publications is a little strange to say the least – Amtix merged with CWTA, who, after turning into CPC Computing for a while, closed, leaving all their readers to flock to either AA or ACU. ACU then, sadly, folded, causing yet another rise in AA's readership. More recently, CPC Attack! surfaced, and six issues later, collapsed, due to lack of support from the CPC users.

Public Domain

As with most of the user controlled areas of the CPC scene, public domain has seen truly massive amounts of support from a lot of users, who like the idea of free (well, very cheap) software, and the chance to get their programs seen by the CPCing masses. There are, however, certain organizations (like ELSPA) who

finally achieved a cult status." Which is true, although, as you'll remember from our European round-up a little while ago, it still isn't quite the cult here that it is on the Continent.

Trojan Products are also committed to the CPC, but in a slightly different way... They produce hardware and cartridges in response to the requests of the almighty Amstrad, as well as marketing the Light Phazer with *Skeet Shoot* and *The Enforcer* – two products written in-house, and reviewed a few issues back. These are the people who supply the cartridges to the rest of known world, and to Trade-In-Post, where y'all can buy them at flippin' good prices.



User Groups

The United Amstrad User Group is adamant about it's policy toward this so-called 'decline' of the CPC. We asked Steve Hayward, the mag editor, whether they would continue their so far excellent support. "Absolutely. The CPC hasn't finished, and the UAUG is growing with it." Watch out for a full feature soon in AA!

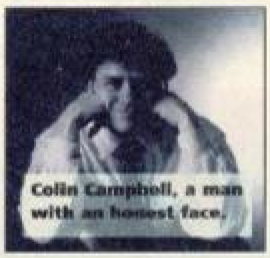
The User Group, being set up closely with Amstrad themselves, are fighting to the death on this one: "As long as there's one user who still wants to use us, we'll stay in operation" Though by the looks of things, with several thousand members, they won't be down to one user for quite a while! On top of that of course, they've collaborated with Future Publishing to offer joint subscriptions for themselves and AA for a massive saving!

Fanzines/PD Libraries

The number of fanzines and PD libraries out there in the world today is huge. There're fanzines from England, France, Germany, Australia, and even Romania! Speaking to a good proportion of these gave us a very good impression, and a very clear idea of their policies: "The software companies may stop, but the users will keep programming." "PD is growing all over the world, with incredible demos from France and Germany. Most of this stuff is better than any of the games we've seen so far for the CPC." Or try "When all of the companies have given up on us, we'll keep going."

The Rest...

Colin Campbell (publisher of AA) had this to say about the whole subject: "Amstrad Action is the focal point for most CPC users. We are therefore in a position to gauge the feelings and desires of the CPC using population. As time goes by, this population gets more and more enthusiastic about the machines they own. There may be less users, but they are far more enthusiastic. This is an excellent state of affairs. Anyone who thinks the CPC is going to curl up and die overnight is being pessimistic. This may be a desperately unfashionable thing to say, but the CPC is here to stay!"


Colin Campbell, a man with an honest face.

CTW

Computer Trade Weekly, the industry's own newspaper, had a few strange revelations in the form of Gallup's annual report. The main stir here was caused by the fact that, according to the report, the CPC sold more games than the SNES in 1992! Curiouser and curiouser, said Alice. We think it can be safely deduced that Nintendo aren't best pleased with the news.

Richard Fairhurst, techie guru of AA these days (and ex-STS member), also had something to say. "The future of the CPC is in PD, home brew software, and especially Europe. Big time, it's almost dead, unfortunately. But there's still a lot of us enthusiastic owners out there and we're not going to go away in a hurry."

Richard Gandy, owner of Capri marketing, and the longest standing member of the budget industry, is adamant on his stance and support of *the market, ad how long he plans to support the* CPC: "...until they die completely or until all software finally dries up." Their motto is simple: "Don't say no until we say no."

Tim Norris, the brand new Acting Ed figure of AA, was also grAbbed for an opinion. We deemed this as quite important, seeing as he's the man who'll have the most say in the way the mag (and in some cases the industry) is going from now on in.

"The CPC is an astonishing machine, with an even more astonishing band of loyal supporters. In a time when 16-bit technology is the norm and 32-bit machines are becoming increasingly affordable it's still hanging in there and its fans

Write An Article!

There is, of course, one other way of hitting the CPC scene – write an article for AA! Dead simple this (we do it all the time). If you are a particular expert on something that isn't already being done (or hasn't been done for a while) in the mag, write a sample article, about 1200 words long, and send it to the usual address, marked "Editorial Submissions". Most of our freelancers enjoy the opportunity to write for AA, and make a little money on the side. Give it a try!

would prefer to see PD users strung up at dawn – the whole concept of PD software undermines the commercial software industry, and stops them making money – but the message from PD libraries is basically "If you can't stand the competition, stay out of the market!"

Fanzines

Closely linked with the PD scene, fanzines are an important part of the whole shebang. We don't have the time or the space to deal with complex coding, public domain, and other stuff as much as we'd like. This gap is filled with a large amount of user fanzines, that boast a slightly more slanted view of the world, a more in-depth look at programming, a more daring look at cracking, and in the case of some, a more twisted look at the planet Earth.

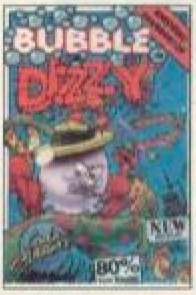
Demos

Whether you think they're the latest in 'cool', whether you follow the school of thought that they're of no practical use, boring and repetitive, there's no getting away from them – if it's not PD libraries shoving them down your throats, it's *AA* running features on them! It's a little irritating seeing all these excellent coders go to waste though. Why can't they create games that look as beautiful as their demos? Scrollies and stuff are all very well, but how about those beautiful effects in a shoot-'em-up? Fear not... EGS of CGS has created the excellent *Zap'T'Balls* for us all to oggle over, and is allegedly working on *Super Cauldron*. A few titles from other groups such as Logon System of France wouldn't go amiss though!

are more fanatical then ever.

"Many years ago I made my first foray into computing using 8-bit machines and it's a joy to be back working with one again. It doesn't matter what anyone says, the CPC's a fab little machine and as long as our readers think so too we'll be bringing them the best mag possible."

See? So Tim's a nice guy after all!

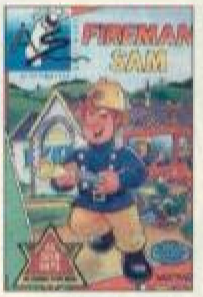


What's Going On?

In recent industry publications, there has been some speculation and comment on the future of the 8-bit and lesser popular formats in the major industry. Some distressing news has come to light:

Codemasters, creators of the ever popular Dizzy series, have announced that they aren't going to be developing any more titles for the CPC in the future.

This is only one example of a slight reluctance to support the CPC with the same vigour that they once had. It's not all bad however, as no-one is panning to drop the CPC entirely – there will still be plenty of re-releases, and budget titles floating about these days.



Alternative Software have stated that they will not be commissioning CPC software after Easter, though they will continue to publish work sent in to them by independent programmers. In the mean time, however, they have got releases planned for *Alvin and the Chipmunks*, *Bully's Sporting Darts*, and possibly, if enough people want it, *Doctor Who Dalek Attack*.

So...?

So the software houses are pulling out – but does this mean the end of the CPC? That depends on how you look at it. Commercially, the CPC may be on it's last legs, but you have to remember that by their very nature, major software houses have to pull out of machines a soon as the profits begin to fall. These aren't just people who sell CPC software as hobby, you see. Their own wealth depends on the sales of their software. It would be blatantly unfair to blame them for not supporting a market if it begins to lose them money.

Need we carry on? Have you got the message yet? It seems that there's still a hell of a lot of support for this machine from the real enthusiasts. With the products you've heard about (and some stuff that some of them have got planned that we're not allowed to tell you about yet), you should be very happy for quite a while to come.

If you're thinking about joining a user group, then you really should look into it further. The newsletters from these organizations are really quite good, and packed full of the same kind of stuff you'll see in AA. As well as that, they have the advantage of a smaller readership, allowing them to go into some subjects in a little more depth, without having to worry about upsetting a huge number of readers. Because they're independent, they're also completely freestyle – they don't have to stick to a rigid format each month. They're also a lot cheaper (they don't have expensive covers, and overheads).

In Summary

Next time your 16-bit owning friend turns around and starts slagging off the CPC, he may not be alone. It's the 'in thing' these days to diss the 8-bits. But what these people don't realise is that the only other people who are forecasting doom are people like themselves. You'll hear a lot of abuse directed toward the CPC these days, and to the great extent it's completely untrue. In a way, it's also damaging, as it led the major commercial figures to pull out of the machine, for no solid reason. The ownership is still high – it hasn't dropped for a good year or two.

What we've seen here today, however, is the 'testimony' of a lot of enthusiasts who'll be staying with us for quite a while to come. There may not be the huge support there once was, and people may say "What's that then?" at parties when you tell them you've got a CPC, but look through the pages of AA, or any fanzine you find from PD libraries, etc, and you'll still find a scene

Programmer Talk...

When talking about the future of any machine, it's also wise to talk to the people without whom there would be no software – the programmers. The general attitude among the fraternity is simple. "The CPC's are nice machines to use. As long as there's someone to sell my work, I'll keep writing it" Nice attitude, but what when there's no publisher interest? "We'll sell it ourselves!"

We have been asked on the odd occasion why AA doesn't set up it's own software sale scheme. The short answer is 'No'. Why? Simple, really – if we started distributing software, we couldn't review it (our editorial impartiality would go out of the window), and it'd hardly be fair to other advertisers if we could give huge amounts of free space to our own software. It's just not on... Sorry 'n'all!

What Can You Do?

So, you want to get on the scene do you? How are you going to make a mark? What are you going to do? This issue, staying in the general mould-breaking vein, sees the launch of a spanking new series on reader action. Each month, we'll be covering a different aspect of how you could get in on the act.

First up, we've got an article on writing software, that you can find on pages 22 – 23 of this ish. Next month, there'll be how to sell your own software, to either a commercial house, or by yourself. After that, you'll be able to find out about anything you want! Simply write in with your requests for what you'd like guides to, and we'll do our best to oblige! The reader who comes up with idea we use wins £25! If they write the whole article, of course, they'll get the normal Amstrad Action freelancer rates – but don't worry about that just yet. An idea will do. Send them along marked "Reader Action" to the usual address!

that's alive and kicking.

At the end of the day, we still know that there're over 50,000 CPC owners, so no matter what happens to the rest of the industry, there's still enough users to support the people featured in this feature. There's still new hardware and software, and a national newsstand magazine.

So next time that 16-bit owner starts calling the CPC crap, boot up some of the French demos, and see 16-bit effects that the CPC shouldn't be able to do. Get a copy of a PD catalogue, and send away for some completely free top quality software for the machine with probably the largest selection of public domain software there is.

Failing that, have a chat to those who've written college theses, letters, and even magazine articles on their CPC for years now.

Or why not talk to the many businesses that are organized on the CPC, and the CPC alone. (And that's everything, accounts, stock records, customer records – the lot.)

What we're trying to say basically is that when you're looking for a dead machine, you'll need to look quite a lot earlier than the CPC for dinosaurs. We may not see the same amount of top new releases that other formats enjoy, but the CPC still receives a lot of attention from some commercial quarters and a huge amount of enthusiasts, who seem to be filling the gap more than adequately.

It's not just the CPC, either. Look at machines like the Spectrum and the C64. They still have national news stand magazines, commercial releases, dedicated companies – they're not dying either just yet. It's called a firm user base.

So, after all this, we do know one thing. The CPC – the machine that started Dizzy – the machine that Freescape (Incentive's *Driller*, *Dark Side*, *3D Construction Kit*, etc) was developed on – the first Z80 machine to cope with sideways ROMs, memory paging, and 3.5" disc drives – the machines that started Amstrad's rise to power – is most definitely here to stay.●

The Final Say

If you're talking about the CPC, and profiling the scene at the moment, then there's one guy you have to speak to – the CPC's answer to President Reagan, the Rt. Hon. Dr Bertram Fegg. "The future of the CPC lies in sending all your money to Dr Fegg, Hotel Belview, Rio De Janeiro, Bognor Regis"

Now, it's over to you

Let's not just sit here muttering to ourselves, let's take some positive action. Tim Norris gets all passionate and makes a plea for your involvement.

As you can see, there are plenty of people out there who fully intend to remain loyal to the CPC for as long as you want them to, so the Amstrad's future seems to be safe. But we can also take some action of our own.

To this end AA is going to be running a series of articles focussing on how you can get involved in the Amstrad scene. We're starting off in this issue by taking a look at writing and selling your own software. Next month we'll look at setting up PD libraries, but from then on you can take over if you want.

We want to hear from you to find out what you want from us. What do you use your CPC for? What do you want from the machine? What do you want from AA? Whatever you use your Amstrad for, we want to hear from you – just drop us a line and let us know. And if you think that other AA readers could benefit from your experiences then why not write an article for us? (Write us anything up to 600 words and we'll pay our usual freelance rates for anything we use.)

There are, for example, people who use an Amstrad to help them with accounts and customer records in their small businesses. Is that you? What software



do you use?
What problems have you come across with the machine and how did you solve them?
Why do you use an Amstrad and not some other machine?

What about all you school teachers? What do you use your Amstrad for? Do you use educational software? Do you use the Amstrad to teach your pupils about computing in general? How do your pupils feel about using the Amstrad? We want to hear from you too.

And all you thousands of home users. Do you just play games? Or have you found some really astonishing uses for your machine?

We want to hear from you all, no matter what you do and no matter how insignificant you think it is – it's surprising, but you often find that something you sorted out months ago is still bothering someone else no end.

So there you are, then. Enough of this down-heartedness. Away dull care, and all that. Fetch out your covertape copy of *Tasword* and get going. Fame, fortune and a bright shiny future for the Amstrad are just a letter away. ●

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Help Yourself

Simon Forrester shows you just what you can do to play a major part in the CPC scene through 1993.

Welcome 'n'all that, to a new series (and a spin-off from the main feature this month) on how to jump head first into the CPC scene, make yourself known, and have the (albeit dubious) honour of appearing in specials such as the five page one this ish. This month, we're dealing with writing software and it's easier than it looks.

There are two main types of software produced on the CPC. These are games and serious utilities. Utilities fall into many categories, like disc utilities, art packages, music packages, sprite designers, programming utilities, ROM software, etc. The actual utility you write depends wholly on your particular forté. If you're an expert on the AMSDOS innards, it makes sense to write a disc utility that uses your knowledge to its best advantage. And utilities are easy to write. When you first start coding, you'll come up with lots of nice routines to do special stuff – it only makes sense to whack a menu in front and call it a utility.

Games, as you can probably guess, are a lot more difficult to write. It's easy to do a type-in quality thing that works purely in BASIC, but a professional piece has to be in machine code, and machine code is notoriously difficult. You'll also need a damned good idea for a game, a reasonably good hand at graphics, and some sonic ability. If you can find a particularly artistic friend, however, you should be well away on that side of things, leaving you to concentrate on the coding. So how do you plan to code? Never fear, Simon's here! As from next ish, the Assembly Line series will be concentrating on coding games, taking you from printing graphics, to moving sprites, and creating title tunes!

Come to think of it, adventures aren't all that easy to write either... You've got to have a great capacity for logic problems, and for string manipulation. In fact, you'd probably be better off avoiding machine code for your first few adventures. This leaves two options open. The first, and probably the easiest, is to use an adventure utility, such as *The Graphic Adventure Creator*, *Quill*, etc. You may not have the same degree of freedom as other programmers who start from scratch with the format of your game, but you'll definitely have more time to devote to the creative side of your adventure. Your second option, of course, is to write your adventure in BASIC. If this tickles your fancy, watch out for the series starting soon on text adventure writing.

Get Serious...

What if you don't want to write games? You could be one of those starchy people who damns games as the scourge of our society, and lethal killers (by the way, as a complete side-track AA takes the firm stance that the use of computers is no more conducive to epileptic reaction than watching television). If you do wish to make use of your CPC in a slightly more serious way, there's still an absolutely huge variety of programs you could write:

Disc Utilities seem to be the latest fad at the moment, what with the new copiers coming in from overseas, and the huge HCDOS (High Capacity Disc Operating System) war raging here in Britain (refereed by Richard Fairhurst, it seems). The basic idea behind disc utilities seems to be to write a faster or more versatile disc copier or HCDOS system.



Soundtrackers also seem to be taking off in a big way, with *Equinoxe*, *The Music System*, *BooTracker*, the pitiful *SuperSonic* (sorry, Richard), and *Soundtrakker* (very good, and reviewed next ish). The world of CPC music seems to be pretty well accounted for right now, but if you feel you've got something better to offer, then by all means give it a try. Be warned though, you'll be up against some pretty stiff competition (just wait till you see what *Soundtrakker* can do). The prime orders of the day seem to be for hardware sound, and the best instruments you can create.

ROM Software is notoriously difficult to develop. For a start, you'll need a good knowledge of m/code. That aside, you'll need something along the lines of a RAMROM (a RAM chip that imitates a ROM chip), so that you don't have to spend quarter of an hour blowing your software onto ROM just so you can test it. Once you've got the correct kit for ROM programming though, the world really is your oyster. There's a great demand for instant access for useful software, as ROMs let you add all sorts of extra commands/utilities to your machine, without having to even touch a disc at power up.

Art Packages seem to be strangely neglected these days, as ever since the release of the *OCP Art Studio*, no-one else has produced a serious contender for the market. Curious, but true. There was talk of the production of an overscan (allowing use of the border as more screen space) art package from the continent but it seems that that's another package that won't see this side of the English Channel.

Watch Yourself!

You probably understand the laws of copyright totally but, in case you don't, here's the single rule you must stick to when writing your own software:

You can use no-one else's code but your own. Using other people's routines is a direct infringement of their rights, and they'll probably get more than a little angry.

Oh yeah, as for advertising, if you plan to sell something yourself, you cannot mention the competitor's products. For instance, if you wrote a soundtracker, you cannot have an advert reading 'Better than *BooTracker*' (that wouldn't be all that difficult). Only the media can comment on stuff like that, as we're impartial, and completely over-opinionated at the best of times.

Get A Concept!

It doesn't take a genius to work out that no matter how proficient a coder you are, a weak concept will make for a poor overall piece of work. That counts for both serious software and games. If you haven't got a good idea, you haven't got a project. So where do you start?

First, simply find a product you like. Is it overpriced? That in itself is a perfectly valid reason for writing your own version, and selling it at a fiver less than your competitor's product.

Is there anything missing? If you've bought a package that has huge oversights, writing a better version is the obvious choice of action. In a way, competition is what keeps CPC software up to the standard it's reached at the moment. Constantly upgrading your work to keep up with the competition is the easy way to stay the leader of that particular field.

Whatever you do in the end, we guarantee you'll have a lot of fun. Programmers may not be painted as the gods they once were, but they still receive a little respect from the uninitiated. Eee – I remember the days when they inscribed programmers' names on huge memorials in the middle of town, and it was all fields...

What Next?

So you've written your top-notch utility, and you've tweaked it till it's as good as it'll ever be. What do you do with it?

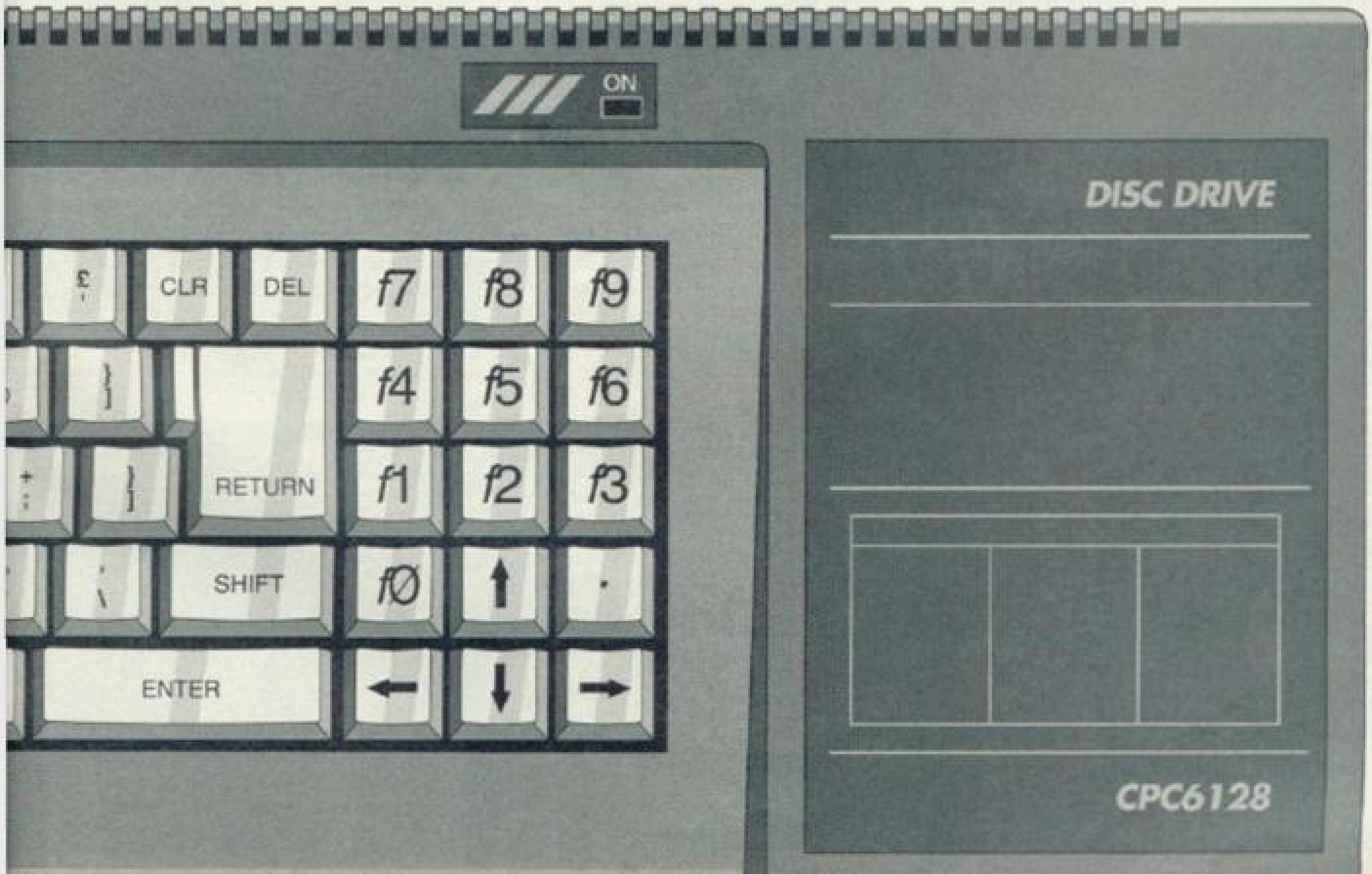
You have three major options:

1 – Sell it yourself. Simply whack a Small Ad in *AA*, and wait for your orders to flood in. After you've raised enough cash, take out a proper ad, and get even richer!

2 – Find a software house. Send a copy of your software to any software house you think might be interested in marketing it.

3 – Send it to a PD library. There are plenty of libraries about that will be willing to take your software on board, and a quick letter to Tim Blackbond will probably assure you a place in Public Image.

So there you have it. Next month we'll be taking an in depth look at selling software. ●



HackIt

It's the most

£24.99 – Siren Software – 061 724 7572

A while back, to the absolute delight of a lot of CPC users, a black box (well, it was white, actually) came onto the market, aimed at slightly more techy users. Instead of the game saving options, it had some incredibly useful tools for programmers and such, allowing them to examine memory, and see what's going wrong with their programs. It also allows a slightly more in-depth view of commercial software, as it worked in very much the same way as the infamous Multiface, but with more features. Confused? Right. The easiest way to do this is to take it from the top...

The HackIt box is this little black thing (they changed the colour back to black – thank goodness). It plugs into the expansion port of your CPC and sports only a switch and a red button. The button is merely a reset button but the switch is the powerful bit. Flicking the switch will mean that when the computer is reset (using the button if you wish), HackIt jumps in instead of the normal sign-on message, meaning the entire contents of memory are left intact and ready to be examined/changed/messed around by you.



It looks fearfully complicated but it's not really.

So – what can it do?

When you first enter HackIt, you get the sign-on message telling you the usual copyright and author gubbins. From then on, you're in a command line mode not dissimilar do that of BASIC. Typing HELP gives you the (long) list of commands. These do various useful things:

ALTERNATE

Makes the CPC use the second 64k of RAM, while still thinking it's the first. This allows you to freeze memory, jump back to the normal RAM, and do what you wish with the second 64k!

ASSEMBLE

We've seen a lot of carefully written programs here at AA, but HackIt's built-in assembler blew us all away! It's only a single line assembler, but this is vitally handy for spot repairs, small experiments and the like.

BANK

This allows you to access the second 64k, by switching in banks much like you would in BASIC or normal m/code (using the OUT commands).

BASIC

If you've got your HackIt turned on, and you want to drop out to BASIC without turning off HackIt and resetting, this command allows you to do just that meaning you can use even more stuff with your code still in memory!

CALL

Dead simple – executes from the specified address in memory.

CAT

I'll give you three guesses!

CLEAR

This fills all usable RAM with zero bytes. Handy for refreshing your computer without losing custom settings, etc.

CLS

Erm... I dunno!

COLOURS

A complete list of screen colours is available through just a few keypresses – Wow!

COPY

Copies blocks of memory from one area to another – It's an intelligent copy routine, so you won't be prone to any nasty accidents that are usually caused with block copy operations, such as site overlap, etc.

DISASSEMBLE

Not only can you disassemble to the screen or printer, but you can send the listing to a text file, for use in other software at a later date! This is, in case you hadn't realised, an incredibly useful feature.

DISC

Allows you to initialize the disc system anywhere in memory, or at the default address. Dead handy of your crashout takes the DOS down with it.

EDIT

A full memory editor with both text and hexadecimal modes.

FILL

Fills an area of memory with a specified byte.

HEADER

Performs an extended catalogue on a file of your choice – Giving natures, default locations, lengths, and execution addresses of files.

IN

Reads a byte from a port *(Watch out, we're getting hideously technical here. – Act Ed)*



useful black box ever. Let Simon Forrester tell you why ●

What Use Is It?

Something that may puzzle you when reading this review is what use something like HackIt can possibly be to anyone. It's simple, really. Any machine code programmer will tell you (go on, ask one) that programming is usually an absolute nightmare.

In BASIC, when there's something that doesn't work, the program stops, and you get a nice little message telling you exactly what went wrong, and where. In machine code, things are not that simple. Crashes in m/code take a number of forms, but nearly all are 'dumb'. This means they don't give any indication of what went wrong. So what could possibly be better than a way to freeze the entire machine at the point of crashdom, and work your way through your code with a good set of dissection tools?

Members of the programming fraternity should be giving a satisfied "Aah" around now, and members of the "We just play games" brigade should try coding sometime – they too will realise the desperate need for a box such as this.

Cracking On...

There is, of course, another group who will benefit greatly from HackIt – the crackers. The ability to rule the machine completely will be a great help to anyone interested in the internal workings of commercially protected software. We don't have to tell you though, that using the HackIt to copy games is illegal, and the penalties for piracy are high. Siren Software do not condone such illegal action, and neither do we.

LOAD

Loads a file, dummy!

MEMORY

A stunningly useful command to give a complete graphical dump of the memory. After a little practice, you should be able to distinguish between machine code, graphics, and data. Exceedingly handy for working out how large chunks of code are.

MOVE

Instead of merely copying code, this command moves it. This means that the original space is empty – handy for rearranging memory, and keeping stuff safe.

OUT

Hold on to your hats folks – we're reading bytes from ports, and it's technical, and no-one can understand it, but it's probably quite useful.

PEEK & POKE

Simple emulations of the BASIC commands.

PRON & PROFF

Turns on/off the output to printer. Great for dumping work for reference.

RESTORE

Sets the inks to readable colours, in case you've lost all control of them during whatever palette shifting you were doing.

RSX

Allows the use of RSX commands from within HackIt.

SAVE

I refer you to the explanation of the LOAD command.

SEARCH

Can search for both ASCII and hexadecimal strings, through certain areas of memory, at incredible speeds.

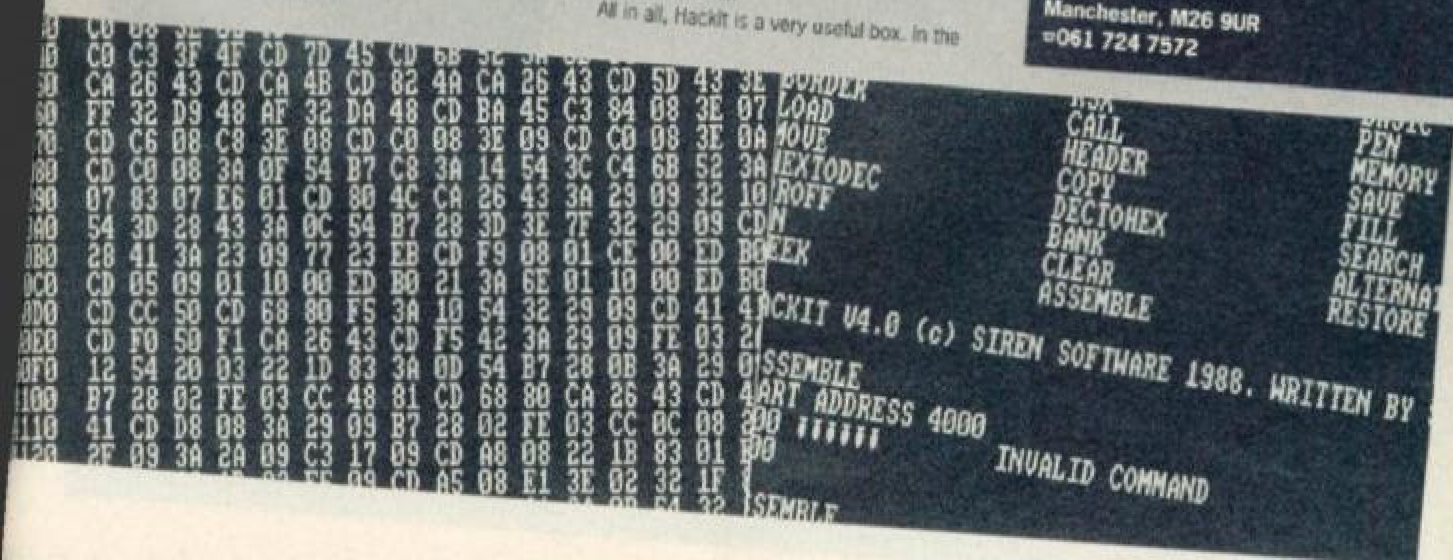
As well as this hugh amount of incredibly useful commands, you can change the colours of the screen (great for reducing eye strain, or setting up inks before running code), and make use of the number conversion routines, instead of dying from brain strain (try calculating hex figures some time).

All in all, HackIt is a very useful box. In the short time it was at AA towers before this review was written, it has saved many an hour of hassle on the CPCs. As far as a programming aid goes, it's one of the best, and was used in several tight scrapes (due to my slaphappy coding) in just one programming session. The care and attention that seems to have gone into the design of the software is second to none, with every command serving a vital use in everyday coding. Having spent just a short time with this add-on, it's hard to see how anybody could survive without the HackIt joined to their machine.

FINAL RATING – 95%

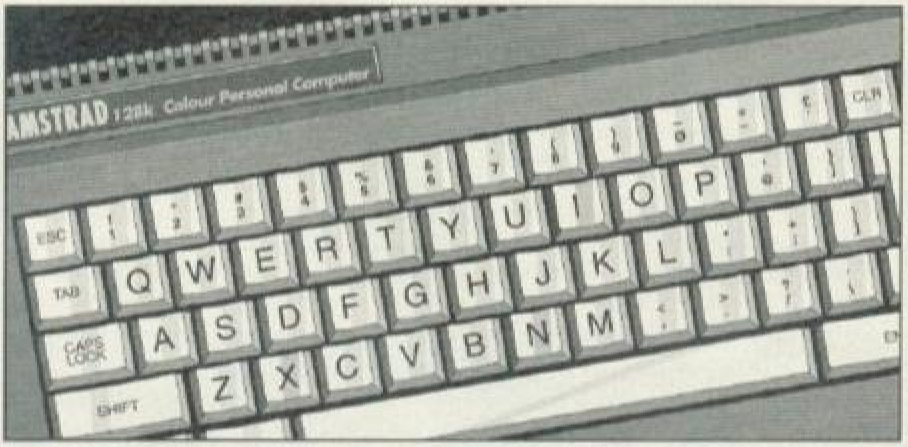
Contact

And you can get this wonderful piece of kit from:
Siren Software
Wilton House, Bury Road
Radcliffe
Manchester, M26 9UR
☎061 724 7572



Assembly Line

In this first part of our assembler tutorial, Simon Forrester takes you on a gentle ramble round the world of machine code and fumbles around with some of those 'string' things.



Okay, enough of the nice guy. You've had thousands of words worth of tutorial in AA before. You've learnt all about machine code, and probably forgotten it again. It's time to chuck you in at the deep end.

There'll be no more of that 'building blocks' nonsense. This is a routine to print strings, it's in assembly, and it runs as follows:

```
    org &4000
    limit &4fff

    ld hl,tester
    call string
    ret

.tester
    db "Amstrad Action",&ff

.string
    ld a,(hl)
    cp &ff
    ret z
    call &bb5a
    inc hl
    jp string
```

Don't look so down hearted though. As machine code goes, it's a really short program. It's not difficult to understand either. We'll go through it line by line.

```
org &4000
```

Tells the assembler where to put your finished machine code. **&4000** is always a nice address, as it's bang in the middle of memory, leaving loads of room for your code, and wads of space for your assembly listings.

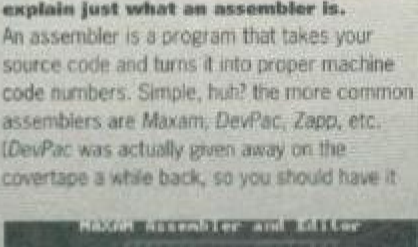
```
limit &4fff
```

Sets the upper **limit** for your assembled program. This stops it rampaging on into bits of memory you can't use. We've reserved 4k for

What's An Assembler?

Oh no... I can't believe it! Okay, since there's no getting out of it, I'll explain just what an assembler is.

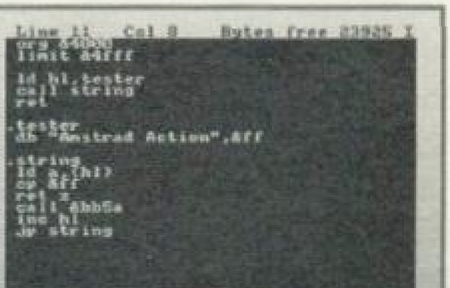
An assembler is a program that takes your source code and turns it into proper machine code numbers. Simple, huh? the more common assemblers are *Maxam*, *DevPac*, *Zapp*, etc. (*DevPac* was actually given away on the covertape a while back, so you should have it floating around somewhere – we'll see what we can do about maybe getting it on the covertape again, but no promises. Failing that, you'll just have to buy one, won't you?)



Maxam – just one of the many assemblers available (and the most famous).

Now I know some of you out there don't have assemblers right now, and it's kinda difficult to get a machine code program together without one. Here's a basic loader to do the job for now, but you really would be better off with an assembler. All those who've got an assembler anyway might be interested in the program, as you can see the numbers once they come out the other end.

```
JAJK 10·'Hapless·Wibble·Hex·Loader
DAEE 20·addr=&4000
EAFH 30·MEMORY·addr-1
DAIJ 40·READ·byte$
CAHA 50·IF·byte$="**"THEN·END
HAND 60·POKE·addr,VAL("&"+byte$)
EAGF 70·addr=addr+1
CAFE 80·GOTO·40
CAPC 90·'Insert·Hex·Here!
```



It looks like a lot of typing for very little result, but stick with it – it's worth it.

```
GAAI 100·DATA·21,07,40,CD,16,40,C9,41
GAAN 110·DATA·6D,73,74,72,61,64,20,41
GAOO 120·DATA·63,74,69,6F,6E,FF,7E,FE
GAMO 130·DATA·FF,C8,CD,5A,BB,23,C3,16
CADN 140·DATA·40,**
```

In future, we'll print the codes for all the routines we do, and you can replace the lines from 100 onwards with the new data. Dead simple. When you've run the program, type **CALL &4000** to run the machine code.

this program (a vast amount – we won't even use 128 bytes).

```
ld hl,tester
```

Gives the address (location) of the string to the 16-bit register **hl**. This is so the routine knows where it is. The command **ld** means **load**.

```
call string
```

Calls the routine.

```
ret
```

Returns us to BASIC.

```
.tester
```

A label. These are usually preceded with a full stop. This is so the assembler knows that what's coming is a label, and not an instruction.

```
db "Amstrad Action",&ff
```

The actual string. Note the control byte **&ff** at the end. This will tell the routine where to stop printing. The command **db** means **d**efine **b**ytes. It allows us to place bytes straight into memory.

```
.string
```

Another label. The main routine starts here.

```
ld a,(hl)
```

We get the byte (in this case an ASCII character) from the address pointed to by **hl**. In this case, it's the first character of our string.

```
cp &ff
```

Is the byte **&ff**? If it is, set the **z** flag, if it isn't unset it.

```
ret z
```

If the **z** flag is set, **return**. This will send us to the instruction immediately after the **call string** that sent us here in the first place.

```
call &bb5a
```

If the **z** flag isn't set, our program rolls on to this line, which uses the jumpblock routine of **txt_out** to print the character in **a** to the screen.

```
inc hl
```

Increment **hl**. This means that **hl** will point to the next byte in the string.

```
jp string
```

And off we trot back to the label **string**.

This month, we've only used one firmware routine:

```
&BB5A - Txt_Out
```

This routine takes the contents of the accumulator (the most commonly used variable) and prints the ASCII character to the screen. There'll be a whole load next month though...

Glossary Of Terms

Address – A number pointing to a memory location.

Assembler – A program that takes your assembly language (source code), and converts it into the numbers that are poked into memory (object code).

Byte – An 8-bit number (between 0 and 255).

Flag – A single bit register that's set by certain instructions in order to convey a result. This means that a flag is either on or off. That's why it's called a flag. It's either showing, or it's not.

Jumpblock – A routine already in memory that performs a certain function.

K – A unit of measurement meaning kilobytes, you'll see it in the context of 4k, etc. A kilobyte is 1024 bytes (it should have been 1000, but 1024 is a rounder number in machine code terms, it being a power of 2).

Label – A pointer recognized by an assembler allowing the user to get a program to jump to sub-routines, point to strings, etc. The fundamental way to access memory.

Register – A variable, basically. There are only a few that you'll need to use regularly, and they are **a**, **hl**, **bc**, and **de**. **h**,**l**,**d**,**e**,**b**, and **c** can all be used as 8-bit registers, though when paired together they hold 16-bit numbers.

String – A set of numbers. It can be text, a numeric information table, or anything. Usually, though, the word string refers purely to text strings.

And that's that, really.



And, of course, your assembler will have a range of commands of its own.

Loose Ends

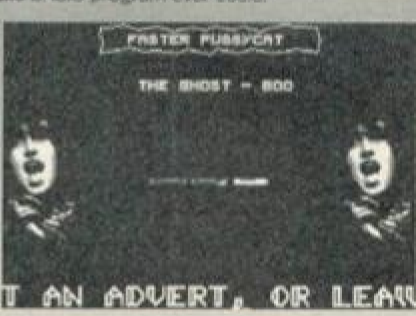
Strings don't have to just contain letters. For instance, sending the number &07 to &bb5a creates a beep. There's a table of ASCII control codes near the ASCII diagrams in your CPC manual, and make use of all of them – this cuts down on extra commands when you want to change modes, set up inks, etc.

Secondly, you could have sent the characters to &bb5d instead of &bb5a. It's a bit faster, and not as friendly (when it comes to windows, scrolling, etc) but it's a few 300ths of a second faster. Though the time gap is pitifully small, it can make all the difference when printing whole screens of text. Give it a try!

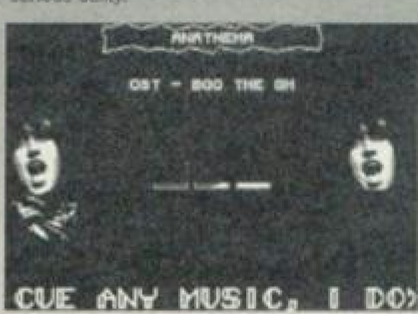
Ah yes, but why bother?

Okay, you've run this program, seen the string appear on the screen, and thought 'Great. Fab. What was the point of that?' It's true, that could have been done in one line of BASIC. But the point is – though you can't really tell when you're just printing a few words – the machine code version ran about ten times faster than the BASIC program ever could!

Now... That's not important where string printing is concerned, but think of this month as a gentle introduction to the style and concept of this series. Next month, we'll get really deep! You'll see just how much machine code can do that BASIC can't, and just how fast it can do it. It's time to write a serious utility!



Once you get the hang of machine code you can make a bid for stardom.



This is the title screen from BooTracker, written by, er, Simon Forrester, actually.

Next month

So what's coming up next month? We'll be covering reading keys, and structuring programs, ready for episode three, when it's going to get a lot harder. We're going to start breaking all those myths that machine code games are hard to write, and build up a game from scratch.

We'll be covering printing sprites, detecting movement, creating sounds, keeping scores, and pretty much everything else you'll need to know.

The game will be a simple version of Breakout that we hope, after a few episodes, will gradually become more and more sophisticated. So if you thought string printing was a big step, hold on to your hats, folks!

Oh, and by the way, if you'd like to see something covered here that's too lengthy to go into in Technical Forum, then please write in and let me know, and I'll do my best to cover it.

Also, if you have any useful shortcuts, or you notice that I've done something blatantly silly and missed a shortcut, drop me a line, and I'll mention it. ●

Technical Forum

That Richard Fairhurst, eh? Ask him a techie question and he'll give you a techie answer. Just send your suitably techie questions to: Technical Forum, Amstrad Action, 30 Monmouth Street, Bath, BA1 2BW.

Let's be direct

I successfully transferred Worktop from tape to disk. However, although the BAS file runs correctly, the DOC and TXT files fail to load and give 'Direct command found' instead. The other two either give rubbish or turn off the computer. In desperation I bought the disk from Ablex, which was no better and produced just the same results. What am I doing wrong? Please help.

ADG Jordan
Salisbury

This is the second such query we received this month (hope you're listening, S W Murray of Cheshire!), so here goes. The last three letters of a filename, known as the file extension, often vary—as you have found out. DOC stands for document, and TXT for a text file. These are instructions for the program, which you can load into a word-processor, or view using Worktop itself: select the appropriate file using COPY, and then choose the 'Display' option. Other common extensions include COM, which means a program (COMmand) which must be run from CP/M, and numbers like 1 and 2, which usually signify a part of a program. Here, the files WORKTOP.1 and WORKTOP.2 are loaded by the main BAS program. You shouldn't try to load them yourself!

Driving me mad

I was fortunate to purchase at an auction an Amstrad 2nd disk drive, an FD1, minus ribbon cable. Fortunately, being an ex-TV engineer, I was able to make up my own. The cable and drive worked, first time, so that I can use the 3" drive for commercially bought software, and the 3.5" drive for PD and AA tapes. However, using the 3" drive as drive A means swapping around the connector at the interface, which is a nuisance and means I cannot use the 3.5" drive as drive B. I was told it was just a matter of piggybacking the cable with a twist to the 3.5" drive. However, this does not work.

I also need to increase the storage capacity of my 3.5" disk drive: would a side-switch be the answer, and would the inclusion of an ABBA switch be of some benefit? Would I be right in thinking this could all be incorporated in the cabling, as I am a little reticent in opening up my new 3.5" drive?

I have a program which enables me to use saved Multiface screens in an art package. For some reason, some images are 'torn' through the centre, like an exact image jumbled and stepped. Is there a better program I could use?

Jeff Small
Neath

Swapping the drives around in the way that you want to is the task performed by an ABBA switch. It's not quite as simple as piggybacking the cable: you have to perform all sorts of faffing about with controlling ICs and the like.

Unfortunately, they're not available for 464s with disk drives: this means that you're stuck with using the 3.5" as drive A. If you want to use a new DOS to increase its storage space, this means that you'll need one that can handle large disks on drive A: our review in AA89 concluded that S-DOS was the best (STS Software, 081 317 3536). You will need a side-switch for best results from this: again, most work only with the 664 and 6128, but STS can fit one to the cabling from your 464 interface.

While you're at it, ask Rob Scott at STS for a copy of his Multiface conversion program, which can handle the screens you're talking about: these play around with the CPC's video chip (the CRTC) to produce a Spectrum-size screen, so that games can easily be converted. Lazy so-and-sos....

The big screen

Yo CRTC! I'm getting into demo coding and am working on my first ever demo. But I don't know how to produce overscan screens, so I can do grafix with no border. Help me!

The article on demos was really great. Come on everyone, let's see some British stuff to rival the continental code. (Watch out for my first demo, coming soon!)

Loki
(no address)

For such a smart effect, overscan is surprisingly easy to do. All you need to do is alter a couple of CRTC registers, by sending the number of the register you want to change to the port &BCxx, followed by the new value to &BDxx. So, for example, to set register 2 to 49 (&31 in hex), you would do:

```
ld bc,&BC02: out (c),c
ld bc,&BD31: out (c),c
```

To use overscan, first of all you need to move the screen to the edges of the monitor. Move it to the top by setting register 7 to 35, and to the left by setting register 2 to 50. However, beware. Not all types of CRTC can cope with this, so set register 3 to 5 beforehand.

Next, you need to tell it the dimensions of the new screen. We can now fit 46 (MODE 1) columns on screen, so set register 1 to 46. There is room for 34 lines, which means setting register 6 to 34.

Finally, we need to tell the CPC that we are using a larger screen. Do this by setting register 12 to 12. This asks for 'a 32k screen starting at &0000 with fries, please'. You will notice a bit of

Spring Equinoxe

When I took out my subscription to AA you gave me the Equinoxe music software. I did not try running this software until my grandson recently paid me a visit, partly because there has been so much else of interest to me in AA *(Aw, shucks – Richard)*.

However, we started by setting out to make a working copy of the disk. It failed on side A: we get the same message if we verify the disk. The message is: 'Disk error, track 22, sector #06, missing address mark within file 1:M'.

WP Fentiman
Birmingham

Equinoxe is what's known as 'copy-protected'. This means that you cannot copy the disk easily, to stop people illegally copying it from their friends instead of buying it. This, of course, has the unfortunate effect of penalising people who just want to make a backup copy.

However, you shouldn't need to worry. Make sure your disk is write-protected (i.e. you can see through the hole in the top left-hand corner), and keep it away from strong magnetic fields (speakers etc.), coffee, Hannibal Lechter, and other such dangers. If your disk fails, you may be able to return it for a replacement anyway.

Questions

ROM with a view

What are ROM-boards? Can I store any program I want on one? Does it work like a hard drive system? Do ROM-boards work on the Plus? What would I need for this, and how much would it all cost?

Jonathan Phillips
Ilkeston

ROM-boards are the best thing since sliced bread (except for chocolate gâteau). Each one holds up to eight programs (different models hold different amounts), each of which is stored on a single chip, ready to be accessed immediately by typing in a command. They're not really like a hard drive, because you can't change the contents of a ROM— after all, ROM stands for 'Read Only Memory'.

This isn't quite true. In fact, most ROMs you buy are the variant known as EPROMs: the EP stands for 'Electrically Programmable'. If you put a blank EPROM into a special programmer unit, you can store your own programs (up to a maximum of 16k) on it. However, you can't change it afterwards, and to get the best results you need to know quite a bit about machine code programming.

Most ROM-boards will work ok on your Plus, although if you buy a Rombo, make sure that it is the Plus-compatible version. Avatar will sell you a Rombo for £25: (0442) 251705.

Tape troubles

My brother and myself are the proud new owners of an Amstrad 464 Plus each. We purchased AA88, with the added bonus of the covertape which we were very eager to try. My brother put the tape into his computer first and Tankbusters, on side one, was great. I now wanted to try it on my computer, but alas it would not load. On the screen came the wording Read error b. We put it back in my brother's computer, and it worked fine. Is it my computer or am I doing something wrong?

Dafydd Miller
Barry

As it works fine on your brother's computer, it can't be the tape that's at fault: I'm afraid this means it can only be your Plus. As you say you've only just bought the computer, this shouldn't really happen: go back to the shop where you bought it and try to get a replacement.

Before you do that, though, it might be mucky tape heads at fault. If you buy a head cleaning cassette (which should be available at WHSmith's and similar places), and run this through your 464's tape deck, this might make a difference. Good luck!

Two in one!

What do I need to play 3.5 inch disk games on my 6128 Plus, and how much will it cost to set up fully? Is there an Amstrad depot in Ireland? If I bought a colour ribbon for my Panasonic KX-P1170 would it print out colour? What is the best art program for the 6128 Plus?

Alan Kelly
Eire

I know you want us to answer your questions in the mag, but sending two copies of the same letter won't make it more likely, Alan! Anyway, you can't buy 3.5" disk games for the Amstrad, because all CPC disk owners with a disk drive have a 3" disk drive (even if they have a 3.5" drive too), so the software houses only bother making them on this size. It wouldn't be economical for them to use 3.5" disks. If you mean that you want to use Amiga, ST or PC games, I'll have to disappoint you: only games made for a specific computer will run on that make of computer, unfortunately! If you still want a 3.5" disk drive, so that you can run CPC programs on 3.5" disk, try Siren Software (061 724 7572).

You need a colour printer to print multi-coloured pictures and so on, I'm afraid, and your Panasonic isn't one of these. Otherwise we'd all buy black-and-white printers and not fork out the extra for a colour model! However, if you buy a blue ribbon, then you can print things in blue, and so on.

The best art package for 128k CPCs is Advanced Art Studio, which you can buy from OJ Software (0257 421915) for £19.95. I hear that a new program, Rainbow Grafx, is coming out soon from the German software house that produced Soundtrakker (reviewed this issue), which should be worth waiting for...

Aaaaaaargh!

Please can you send me a book or two or lots of type-ins and can I have some info about Amstrad and games and Multiface pokes. Please can I have the (6128 Plus) manual as well.

Thank you very much.

Philip Marsh
Essex

No! We can only reply to your letters in the mag, so please don't send SAEs and stamps for personal replies. We just don't have the time to reply to any more. And sorry, we're not a charity, either... if we sent out freebie goodies to people left, right and centre, we'd go bust in five days flat. All we can suggest is read AA every month and inwardly digest the whole lot. This has been a public service announcement. Thank you.

gunk at the top of the screen, so change register 13 to &40 to skip past this.

You now have an overscan screen. It sits in memory between &0000 and &7FFF, so make sure that your program is above this.

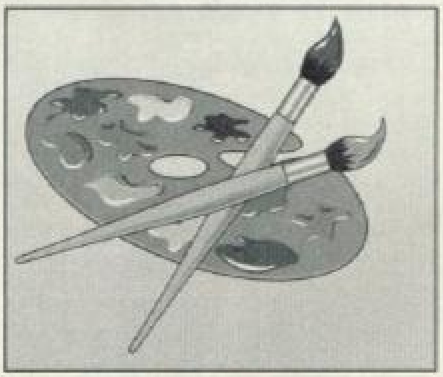
Oh, and please do send us a copy of your demo when it's finished...!

The very last GPaint question!

I have spent hours reading the instructions for GPaint but it still will not work, it just displays the code 47619 and 59011. How can I make the program print out my work? I would also like to know if there is any way to format 3" disks without using the CP/M system disks, as I bought my 6128 second-hand and did not get the disks with it. Since then, when I have wanted to transfer AA covertapes to disk, I have had to erase a game disk...

David Murdoch
Luton

Aaaaaargh! Please don't wipe your games!



Instead, you should have found on the AA88 covertape a program called DMON. This will let you format new blank disks. (If you missed this issue, you can order a back issue from our mail order department, or alternatively trawl the PD libraries for a formatting program.)

As far as GPaint goes, we're still receiving tons of queries about it, so here's an explanation one more time. What happened was that, when transferred to disk, the original print routine did not work. After a number of complaints, I put the print routine on the covertape again, so that these could be transferred onto your GPaint disk; however, no-one seemed to be having any more luck. The culprit eventually turned out to be the tape to disk transfer routine, which refused to transfer the files in question!

Solutions? Well, one was printed in Techie Forum a few issues ago. Alternatively, you can use the JL-Copy program on the AA88 covertape to transfer the files HARDCOPY.BIN and HCOPY3.BIN to disk.

The Action Bank

I have an Amstrad CPC6128. I would like to be able to use it with a modem to use my bank's Telebank service, which requires the use of a videotext terminal or a 1200/75 modem. Could you kindly tell me what I need in terms of software and hardware, and from where it can be obtained.

Additionally, I am using a Canon BJ10ex printer with ROM Protext, and getting excellent results in Epson mode. I would like to use the font available in the IBM/Canon mode, and cannot work out how to use SETPRINT to convert

the # into a £ sign. I would appreciate any help you can give.
PGA Howells
Oxfordshire

First of all, you need a modem capable of 1200/75 baud, which defines the speed at which information is transmitted over the phone. This speed is also known as V23. Try the AA Small Ads, a computer dealer, or the advert for large resellers in business computer magazines.

You then need an RS232, or 'serial' interface to connect your CPC to the modem. Siren Software (061 724 7572) will sell you a model with the necessary viewdata/videotext software built-in. Finally, remember that your 'phone socket must be a new-style one, where the 'phone can be plugged and unplugged.

As for your bubble-jet problem, I would suggest that you look up how to select different languages in the printer's manual. Then you can either set the DIP switches on the printer to the UK language, or use the 'escape code' (a sequence of characters to be sent to the printer) to select this language as part of the reset sequence sent by Protext. To do this, type in SETPRINT (while in Protext), and answer 'n' to the first question. Press 'y' when asked if you want to change control codes. You want to change the reset code, so press @. Type 27 64 (with a space after each number), followed by the numbers to select the UK language, with a space after each one. Finish with ENTER twice, ESC, ENTER again, and then 'y' to save the printer driver on disk (give it a filename).

Filing secrets

I would like to know how to save and reload data in my own programs. So far I have got this:

```
10 CLS: INPUT "What is your name";name$
20 OPENOUT "data"
30 PRINT #9,name$
40 CLOSEOUT
```

It saves something, but when I reload it with:

```
50 LOCATE 7,13: INPUT "= ",name$
60 OPENIN "data"
70 CLOSEIN
```

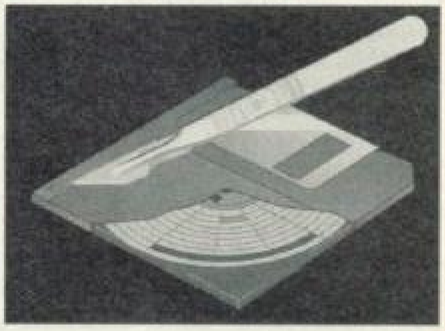
it doesn't print the name I enter.
Ian Chambers
Essex

What your second piece of BASIC does in line 50 is wait for you to type in your name: it doesn't look ahead to line 60 or 70. Line 60 then opens the file for input, but line 70 closes it immediately!

You're not far off. What you need to do is open the file for input first, then INPUT from #9 (as you PRINTed to it), and then close it. Try this:

```
50 OPENIN "data"
60 INPUT #9,name$
70 CLOSEIN
```

PRINT name$ afterwards to check that it's worked. And that should do it. ●



Top Tips

Whoops!

Sorry to anyone who typed in Swap (AA89), but I made a mistake. The GOTO 430 in line 430 should read GOTO 510. Now you'll be able to win properly!
Paul Turner
Cleethorpes

Music for the masses

The CPC can produce some really quite impressive sounds, but the in-built speaker doesn't do them justice at all. The Plus's monitor speakers are better, but for the ultimate in sound quality buy yourself a pair of MacSpeakers (MCM, 081 963 0663). List price is £179.95, but you may be able to get them for £100 or so. Believe me, they're worth it!
Richard Fairhurst
Oakham

£100? For a pair of speakers? Honestly, some people have got more money than sense. Who does it say wrote this letter? Hey, hang on...

Pro-gram

Because most people don't read the manual fully before playing around with a new program, they may not realise that *Protext*, as well as being a great word-processor and, in conjunction with *Maxam 1.5*, a tip-top machine code editor, can also be used to write BASIC programs. Why should you want to? Well, Protext's editing features are far better than BASIC's, especially with the block move, copy and delete features and so on.

You can simply type your program into Protext (in PROG mode, which you get at by typing PROG in command mode), and save it out to be loaded by BASIC. If you want to re-load it into Protext after modifying it in BASIC, be sure to save it as ASCII (`SAVE"filename",A`). However, if the line numbers are regular, you can ignore them and let Protext do the work. When you've finished typing in the program, just use the MODIFY command to put line numbers in front of each line: reply 'A' to the Add or Remove question, 'n' to quotes, 'y' to line numbers, and then enter the first line number and the step between each line. I now use this method all the time.

By the way, why do people keep on writing to magazines saying that *Brunword* is better than *Protext* or vice versa? The two are completely different programs. *Brunword* is tops for producing letters, essays etc. on a standard printer. It's also recommended if you can't spell! However, if at any time you may want to use a weirdo printer, produce programs or text files for a disc, or transfer your files to different computers (in ASCII format), buy *Protext*.
Pete Whicker
Cumbria

Stupid tip of the year

If you want to annoy an Amiga-owning friend, here's what to do. Get one of their discs, pull open the metal shutter, and put some Superglue on. Now sprinkle lightly with carborundum. Replace the shutter, and tell them that the disc contains an ace new game. Watch their face as their disc drive goes 'crunch' and stops working!
Ronnie Biggs
Rio de Janeiro

Er, yes. Why do you think that's funny? Please go away and never bother us again.

First look

If you want to make a file appear at the top of any catalogue listing, save it with a filename beginning with '#'. This means that, when the CPC sorts the list into alphabetical (or rather, ASCII) order, this is one of the first characters and so gets printed first.

This is great for when you send people letters on disk together with programs, so then they can run your letter first.

The user area system is good for sorting files out into categories, but has the disadvantage that you can't see all the files at once. This makes the method of putting non-alphabetic characters at the start of filenames great, as it doesn't have this disadvantage. Other characters to try are the apostrophe, + and – signs, and the at symbol (@). Especially useful if you use large-format 3.5" discs!
Greg Wilkes
Littlehampton

Point of view

I hope this arrives in time for your Multiface special. *(Sorry, too late. – Richard)* There is a way to find out what memory location the computer was at before it was interrupted by the Multiface. Enter the Toolbox, make sure the Multiface's RAM is turned on (there should be a star at the bottom right) and that you are in hex mode, and press R. Press ENTER until 'SP' is displayed. Note this number, press ENTER, and note the next: then go to this address (turn the Multiface RAM off first).

For example, if the numbers were C6 and then BF, go to address &BFC6. This is the current location of the stack pointer.

All you have to do then is take the two numbers from here and the next address in the same way, and go to that address.

Hey presto—that's where the Z80 was before you rudely interrupted it.
Ed Sykes
Solihull

Price Buster

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THE SAVIOUR

This is one area where the **MULTIFACE** saved everything - literally. The black magic box could stop anything any time and **SAVE** it to disk or tape. When the 6128 came with a built-in drive, it was left again to the **MULTIFACE** to do all the transferring - and to perform other miracles...

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ACTION!

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INFINITE LIVES

listed in this magazine and you'll *never* loose. The MULTIFACE comes with a built-in **TOOLKIT** that lets you inspect/alter/dump the CPC RAM. It also has its own 8K RAM and 8K ROM. Many top programs were written with the aid of the TOOLKIT and the extra 8K RAM. And do you like the **screen shots** in this magazine? They are all produced using the **MULTIFACE!**

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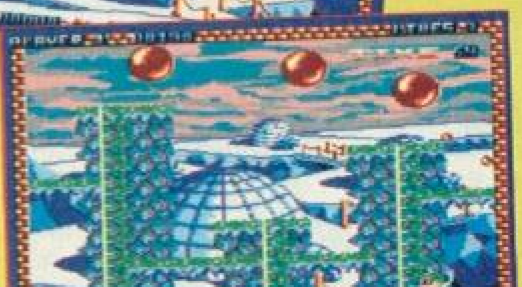


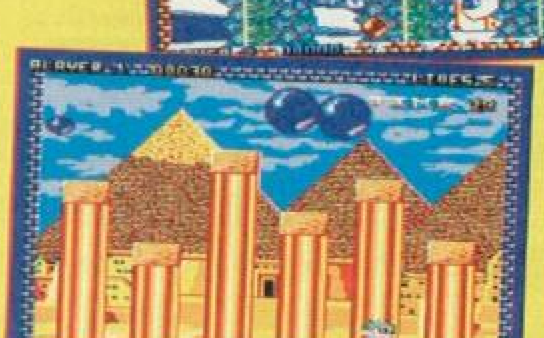












Look back a few issues and you'll see a review of a game called (for some strange reason) Zap'T'Balls. In Yorkshire, such a name would be quite normal, but ZTB was written in Austria (or thereabouts). But never mind all that, those nice people at Sentinel Software have given us two copies of the game to give away, along with seven Zap'T'Balls T-Shirts.

But what do I do?

Simply write your answers to the following questions on a postcard or the back of an envelope:

1. What is the capital of Austria?

2. In which city is the Spanish Riding School?

3. Which Ultravox song was kept out of the number one slot in the UK chart in 1981 by Joe Dolce?

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Issue 83: A packed tape with *Tetris* game, music composer and a full game – *Defenders Of The Earth*. Inside: CPC bargains in France!



Issue 84: On the tape: *Famous Five*, the complete game. Inside! Review of *Hideous*, Virtual Reality special, the best 3D CPC games and colour printing special.



Issue 85: A look at music-making on the Amstrad, a WIMP interface and a *PowerPage* tutorial. On t'tape, two full games – *On The Run* and *Link*.



Issue 86: Feature on Alternative's kid's TV licences plus review of the *Picasso* art package. On the tape – *Glider Rider* (full game), MIDI demo and three utilities.



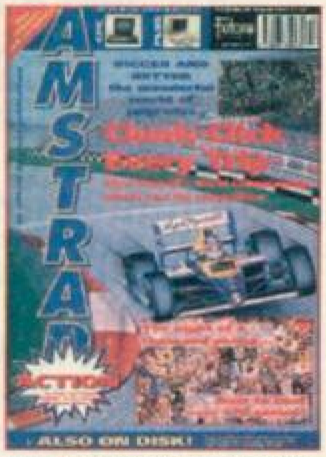
Issue 87: Inside – the complete history of Dizzy and review of the Amstrad NC100 notepad. And! *Football Manager 3* reviewed. Full game of *Nexor* on the tape.



Issue 88: Two complete games on the tape – *Tankbusters* and *Penguins*. Inside, *Videomaster*, *Robin Hood: Legend Quest* and *Crystal Kingdom Dizzy* reviewed.



Issue 89: Inside – Buyers' Guide to disk drives, a look at CPC-stretching demos and *Crazy Cars 3* reviewed. Plus! *Wriggler* and three great utilities on the covertape.



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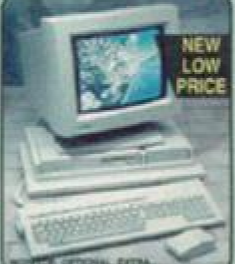
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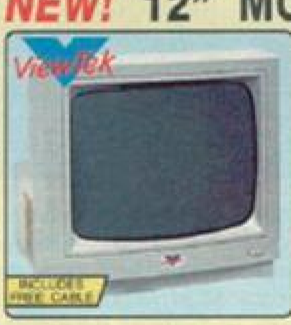
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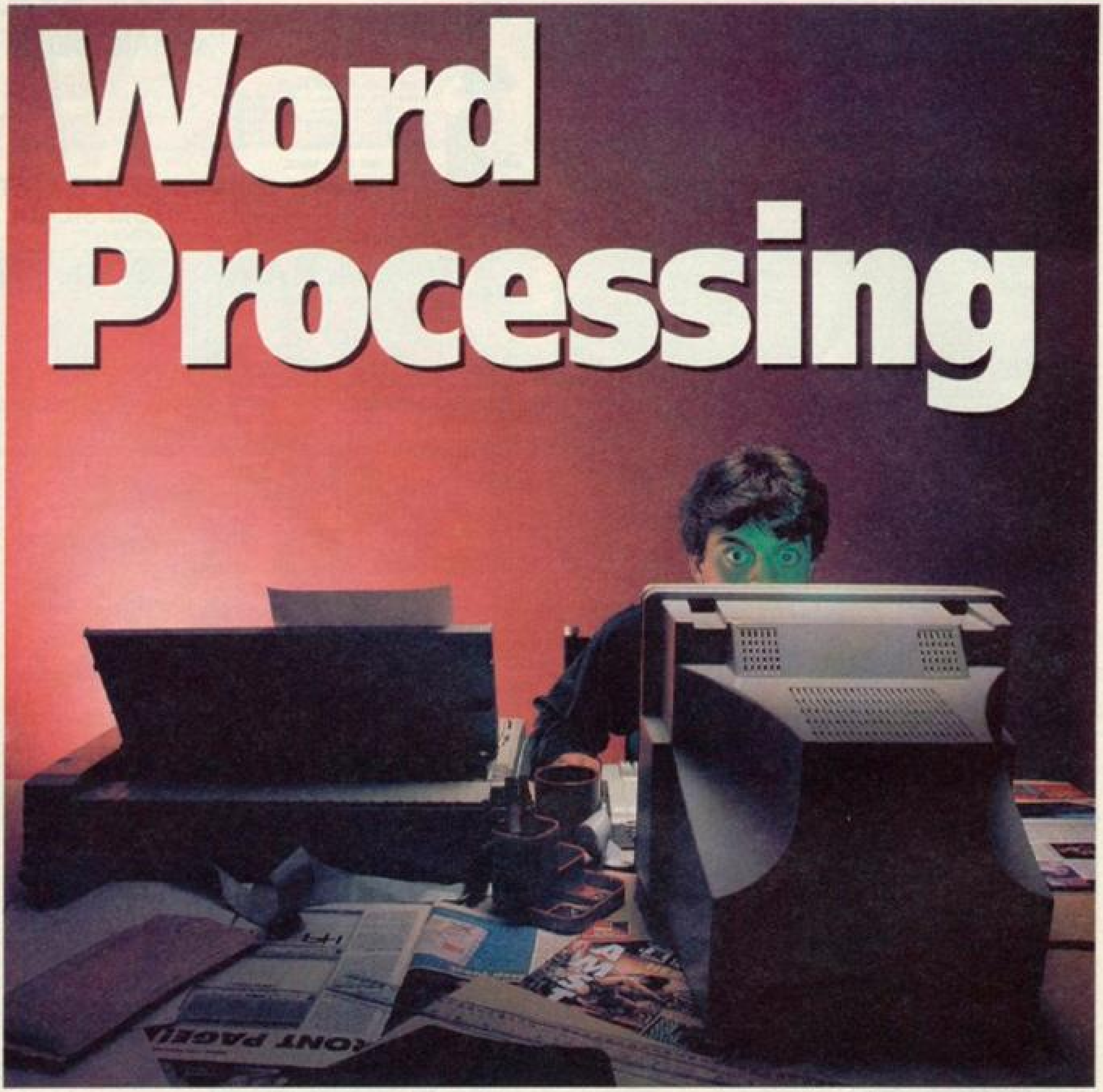
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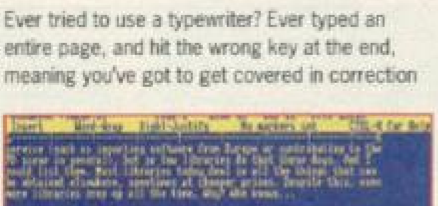
Word Processing



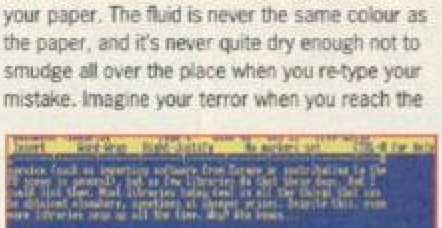
With word processing very much on our minds, Simon Forrester thought a WP round-up would be in order.

Ever tried to use a typewriter? Ever typed an entire page, and hit the wrong key at the end, meaning you've got to get covered in correction fluid, and heady on trichloroethane. You've got to then fiddle about trying to get the type head back down to the site of the correction, and level with the rest of the text, before typing what you wanted over the mound of gunk that now sits on your paper. The fluid is never the same colour as the paper, and it's never quite dry enough not to smudge all over the place when you re-type your mistake. Imagine your terror when you reach the end of a page, only to look up and realise that you'd had CAPS LOCK on the whole time! You could invest in an electronic typewriter, and suffer editing a document on one of those single line torture devices, but they're not all that much easier in the end.

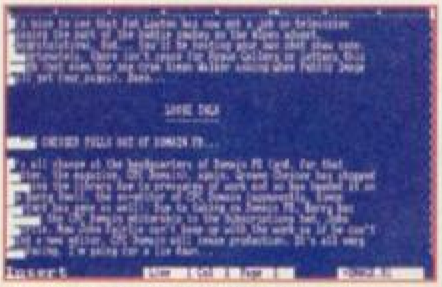
Now... Wouldn't it be nice to be able to type out your work, see the finished product, but then be able to change words, sentences, punctuation, etc? Wouldn't you just love to be able to pick up a paragraph and slap it down somewhere else? Well, since the dawn of the word processor, you can. The idea is very straight forward – you simply go to your computer (a CPC, for instance), and type your copy (text) using a WP (word processor) package. You can then chop and change as much or as little as you wish, without having to re-type anything. You can tell where pages are going to fall, and look for spelling mistakes, all



Tim B uses Protext to write his PD column.



...and apparently he quite likes it.



The Public Image text in Brunword.



Brunword's command short-cuts.

before your work even sees a piece of paper. Put simply, a word processor is just a glorified typewriter. Used to their full advantage though, word processors are incredibly sophisticated and powerful writing tools, cutting out all the hassle of antiquated typewriters.

Whatever they may say about the CPC in comparison to the newer, high powered computers you'll see in the high street these days, you do have a machine that's quite capable of running a package such as a WP package. In fact, several have been released for the CPC over the years, giving you quite a wide choice of purchases. These word processors may not be as powerful as the kind of thing floating around on the top PCs and Macintoshes these days, but for most practical needs, they're perfectly adequate.

Protext

Available on tape, disc, or ROM, *Protext* is one of the more popular WPs around today. The prices vary depending on where you buy it, but you can find the disc version for around £20, and the tape version for around £15. The ROM version will cost a little more, but is a worthwhile buy, as *Protext* can be extremely useful to have at just a few keypresses.

Having *Protext* on ROM also means you can process larger documents, using the part of memory previously occupied by the program itself (due to some cunning design feature, ROMs don't take any extra memory, as they theoretically sit where the screen does – it's very complicated).

Protext works in a command-line mode, meaning you type in instructions to process your text, as opposed to selecting functions from a system of menus. It can handle foreign characters, page breaks, and special printer control codes.

It also has a further range of products behind it, such as spelling checkers, mail mergers, print enhancers, etc.

Brunword

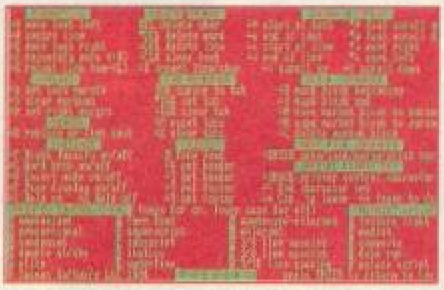
Prices on *Brunword* range from "weightily priced" to "blummin' expensive". The disc version starts at a slightly scary £30, the ROM cartridge in a terrifying £79, and the full ROM cartridge (with a print enhancer) a face-ripping £125. Assuming you're not a multi-multi-millionaire, and you do save up enough to purchase the disc based version, you do get quite a comprehensive version of *Brunword*, with the standard text editor, and printer driver.

The one problem you'll encounter if you wish to use *Brunword* for anything other than printing documents, is that it's a little difficult to work with standard ASCII files, so that printing is literally all you can do. But once you've got past this and a few other problems (the text manipulation features seem a little limiting), you should find a reasonable word processor underneath, even if you have taken out a second mortgage to buy it.

Tasword

Now some might say that AA is a little biased on this one (considering we're giving it away on the covertape), but *Tasword* is a nice little package. The tape version won't cost you a thing (for very obvious reasons), and the disc version will cost a fairly reasonable £20 (we're working on a special offer deal as you read this). The disc version is, however, only usable by 6128 owners (others can use the covertape version once transferred), as it takes full advantage of the extra memory of the machine, to give extra features, and a larger document capability.

As a package, *Tasword* offers nearly all of the features boasted by *Protext* and *Brunword*, and works as a very nice alternative to other, more expensive, software. It comes complete with a tutor file as well, to help you get started on your way to writing the best-seller of 1994.



Tasword's vast set of editing commands...



...and a very useful tutorial file.

Contacts

Arnor Ltd
611 Lincoln Road
Peterborough
PE1 3HA

Brunning Software
138 The Street
Little Clacton
Essex
CO16 9LS

Tasman Software
Hilton Court
2 North Hill Road
Leeds
LS6 2EN

So, WP packages are useful things. They're used in everyday life all the time – in writing this magazine, for instance, we use WPs on Apple Macintoshes, and our freelancers all use CPCs.

As for the three word processors you've seen here, they each have individual merits. *Brunword*, for instance, has a RAM disc facility, but at the same time the whole package is hideously overpriced. *Tasword* has no such facility, but is a great package to learn with, due to it's ease of use and tutor file. *Protext* has no RAM disc, but can support international characters. But if you've got a word processing need, one of these three packages can fill your need. ●

Print Run...

So... You've typed out your award winning book on whichever word processing package you decided to buy, but how do you get it onto paper?

You'll need what's known as a printer. The prices on these vary from 60 quid to several grand, depending on what you want your final result to look like.

Printers come in several varieties. The most popular type are 9-pin and 24-pin dot matrix, that punch inky dots onto the paper (it's a lot more technical, but you don't have to worry about that). All you need to know is that the more pins you've got, the better the quality of your print-out.

Printers plug into the printer port (funnily enough) at the back of your CPC, and simply take the characters squirted down the cable and slap them onto paper.

The paper itself is either tractor feed (that stuff that's all joined together, and has holes down the sides), or plain paper (usually A4 – the size of one AA page).

The main names to go for when buying printers are Star, Epson, Amstrad, and Citizen. Anything with the word "Centronics" on it should work with your CPC, tough you may have to buy a new cable to connect it up – the cables supplied are usually for PCs and such.

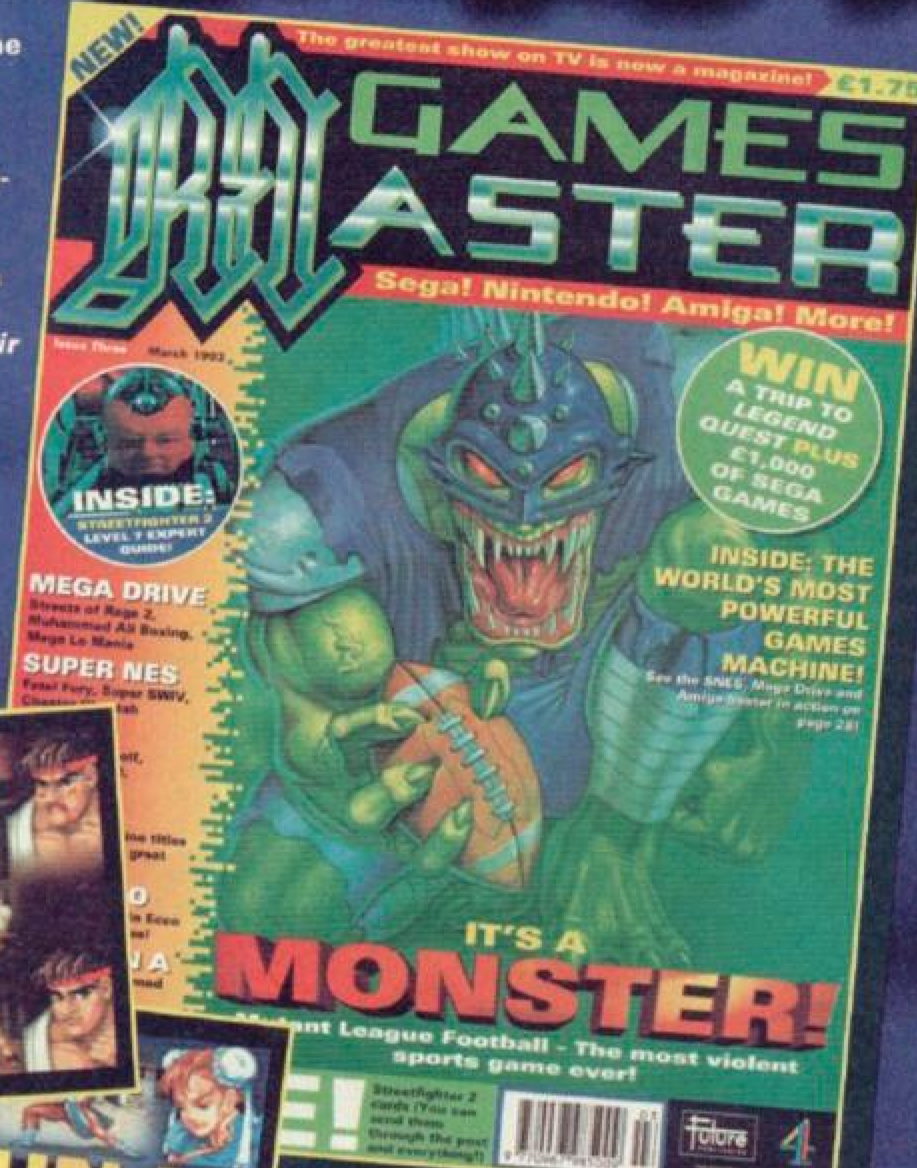
IT'S A MONSTER

"It" is the latest edition of the highly informative and frequently amusing video games organ, GamesMaster, and a more monstery publication it would be hard to imagine.

This month there are reviews of *Streets of Rage 2, Mutant League Football, Dragon's Lair 3, Super SWIV*, and more.

You will also find the opportunity to enter all manner of entertaining and exciting competitions, contests and challenges.

It's available now at all good newsagents, some supermarkets and a great many garages.





FREE!

Presented with the issue are a set of four *Streetfighter 2* postcards, each depicting a character from the mildly popular beat-em-up in a thrilling action pose. The cards are fully functional and can be sent through Her Majesty's Post. There are eight in the set, allowing much common-room swapping and bickering.

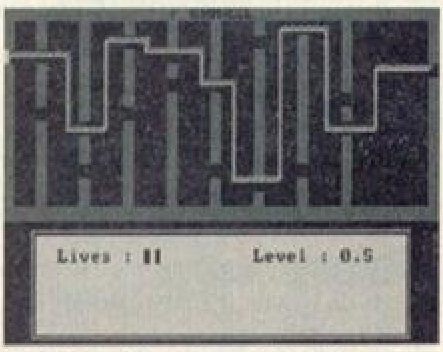
Type-ins

Welcome typers-in of listings. In a truly mammoth section this month, we've got five programs – (although one of them's a bit of a shorty). Anyway, here's Simon Forrester with the goods.

AhMaze

Pete Nicholls of Brixton has sent along a lovely little steer-'em-up game, with levels an' everything! Without further ado:

```
KAML 10·'·AHMAZE·(PD)·Pete·Nicholls·(Nov·92)
AAJK 20·'
OAKK 30·MODE·1:BORDER·0:INK·0,0:INK·1,21:INK·
     2,17:INK·3,5:DIM·st(13)
IAON 40·FOR·r=2·TO·13:READ·st(r):NEXT·r
ABCE 50·WINDOW·#1,4,37,17,23:PAPER·#1,1:PEN·#
     1,0:WINDOW·#2,1,40,1,15:PAPER·#2,0
IADE 60·tt$=CHR$(24)+":·AHMAZE·:"+CHR$(24)
KBMJ 70·PEN·3:LOCATE·15,3:PRINT·STRING$(12,CH
     R$(140)):PRINT·TAB(15)·STRING$(12,CHR$(1
     43)):PRINT·TAB(15)·STRING$(12,131)
HAJI 80·PEN·2:LOCATE·16,4:PRINT·tt$
OBON 90·PEN·1:LOCATE·7,8:PRINT"Steer·your·way
     ·safely·to·the":PRINT·TAB(7)"exit·gate.S
     peed·increases·on"
JCPB 100·PRINT·TAB(7)"each·level.Do·not·despa
     ir·if":PRINT·TAB(7)"you·lose·a·life·...·i
     t·can·be":PRINT·TAB(7)"restored·by·caref
     ul·gameplay"
NABJ 110·PRINT:PRINT:PRINT·TAB(13)"Select·Con
     trols"
HBPM 120·PEN·2:PRINT:PRINT·TAB(13)"J";:PEN·1:
     PRINT"oystick···";:PEN·2:PRINT"K";:PEN·1
     :PRINT"eys"
JAAH 130·k$=UPPER$(INKEY$):IF·k$="J"·THEN·180
EAPP 140·IF·k$()"K"·THEN·130
GBLP 150·PEN·2:PRINT:PRINT·TAB(9)"Q";:PEN·1:P
     RINT"....UP······";:PEN·2:PRINT"O";:PEN·
     1:PRINT"....LEFT"
FBMM 160·PEN·2:PRINT·TAB(9)"A";:PEN·1:PRINT".
     ...DOWN····";:PEN·2:PRINT"P";:PEN·1:PRIN
     T"....RIGHT"
JANJ 170·up=67:dn=69:lt=34:rg=27:GOTO·220
HAFN 180·up=72:dn=73:lt=74:rg=75
AABO 190·'
FANB 200·'|·Play··Game·|
AAKN 210·'
EALA 220·GOSUB·740:CLS
OAKP 230·MOVE·42,28:DRAWR·0,120,2:DRAWR·554,0
     :DRAWR·0,-120:DRAWR·-554,0
GAON 240·lev=4:lf=3:sc=0:bn=0
CAAP 250·GOSUB·540
LAMN 260·x=624:y=st(dx):xx=-lev:yy=0:MOVE·x,y
KAGJ 270·DRAW·x,y,2:DRAW·x+5,y+5:SOUND·1,1,1,
     ,,,1
KAIA 280·IF·INKEY(up)=0·THEN·yy=lev:xx=0
KADC 290·IF·INKEY(dn)=0·THEN·yy=-lev:xx=0
KAJC 300·IF·INKEY(lt)=0·THEN·xx=-lev:yy=0
JACP 310·IF·INKEY(rg)=0·THEN·xx=lev:yy=0
GABL 320·te=TEST(x+xx,y+yy)
EACL 330·IF·te=1·THEN·430
EAIL 340·IF·te=3·THEN·370
IAED 350·MOVE·x,y:x=x+xx:y=y+yy
CALK 360·GOTO·270
MAOP 370·FOR·sd=10·TO·600·STEP·10:SOUND·1,sd,
     2,10:NEXT·sd
NAKN 380·PEN·1:LOCATE·14,7:PRINT·CHR$(24)"·HI
     T·THE·WALL·"CHR$(24)
HANC 390·lf=lf-1:IF·lf)0·THEN·460
CBMP 400·PEN·1:LOCATE·15,9:PRINT·CHR$(24)"·GA
     ME··OVER·"CHR$(24):CLEAR·INPUT:GOSUB·740
GAMJ 410·IF·sc)hi·THEN·hi=sc
CAFK 420·GOTO·240
NAOC 430·FOR·sd=200·TO·50·STEP·-10:SOUND·1,sd
     ,8,10:NEXT·sd
PAMJ 440·PEN·2:LOCATE·11,7:PRINT·CHR$(24)"·TH
     RU·TO·NEXT·LEVEL·"CHR$(24)
PANO 450·lev=lev+0.5:sc=sc+(lf*3)+11:bn=bn+1:
     IF·bn)5·THEN·bn=5
NABJ 460·IF·bn)4·AND·lf(3·THEN·lf=lf+1:bn=0:E
     LSE·GOTO·500
HAMK 470·FOR·del=1·TO·150:NEXT·del
MAAN 480·FOR·sd=350·TO·2·STEP·-2:SOUND·1,sd,1
     ,10:NEXT·sd
NABH 490·PEN·2:LOCATE·15,9:PRINT·CHR$(24)"·BO
     NUS·LIFE·"CHR$(24)
IALG 500·CLEAR·INPUT:GOSUB·740:GOTO·250
AANN 510·'
FAMO 520·'|·Game··Screen·|·
AAFN 530·'
PAIK 540·CLS#1:LOCATE·#1,3,2:PRINT·#1,"Lives·
     :·";STRING$(lf,CHR$(133))
LAFB 550·LOCATE·#1,21,2:PRINT·#1,"Level·:";le
     v-3.5
NAKB 560·IF·sc)0·THEN·LOCATE·#1,3,4:PRINT·#1,
     "Score·:";sc
BBKJ 570·IF·bn)0·THEN·LOCATE·#1,3,6:PRINT·#1,
     "Bonus·:·";STRING$(bn,CHR$(211))
MAGO 580·IF·hi)0·THEN·LOCATE·#1,21,4:PRINT·#1
     ,"High··:";hi
NAGC 590·CLS#2:INK·3,0:PEN·3:LOCATE·1,1:PRINT
     ·STRING$(40,143);
DBPH 600·FOR·a=2·TO·14:LOCATE·1,a:PRINT·CHR$(
     143):LOCATE·40,a:PRINT·CHR$(143);:NEXT·a
GADB 610·PRINT·STRING$(40,143);
DAKK 620·FOR·b=1·TO·8
EAKD 630·FOR·ba=2·TO·14
IACB 640·LOCATE·b*4,ba:PRINT·CHR$(143)
DALG 650·NEXT·ba,b
DAPK 660·FOR·c=1·TO·8
EABA 670·ca%=(RND*11)+2
MAEL 680·cb%=(RND*11)+2:IF·cb%=ca%+1·OR·cb%=c
     a%-1·THEN·680
MAMK 690·LOCATE·c*4,ca%:PRINT"·":LOCATE·c*4,c
     b%:PRINT"·"
CAJH 700·NEXT·c
JANC 710·dx=(RND*11)+2:LOCATE·40,dx:PRINT"·";
IAIB 720·LOCATE·16,1:PRINT·tt$:INK·3,5
NAAP 730·ex=(RND*11)+2:PEN·1:LOCATE·1,ex:PRIN
     T·CHR$(133):RETURN
.EBOH 740·PEN·1:LOCATE·12,15:PRINT·CHR$(24)"·A
     ny·Key·To·Play·"CHR$(24):CALL·&BB18:RETU
     RN
LAIB 750·DATA·376,360,344,328,312,296,280,264
     ,248,232,216,200
```



It's either a bizarre way of sketching the Manhattan skyline, or it's a maze game.



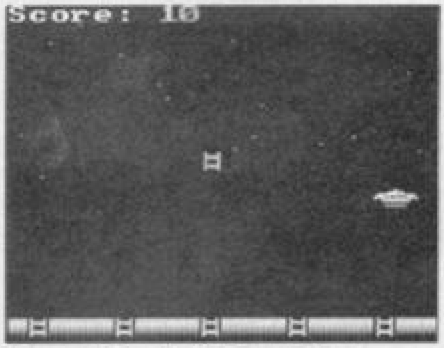
Magic squares, eh? Hang on, there are two 8s and two 10s. That can't be right.

Magic Squares

Have you ever seen one of those magic square type thingies? If not, then you will in a short while, as Mr J M Bywater of Wakefield in West Yorkshire has written a rather nifty program to draw them...

```
FALM 10·REM··*··MAGIC·SQUARE··*
CBNN 20·CLS:MODE·1:LOCATE·1,11:PEN·2:PRINT"MA
     GIC":LOCATE·1,12:PEN·2:PRINT"SQUARE"
CBNG 30·LOCATE·1,1:PEN·1:INPUT"A·number·for·t
     he·centre,please...·";X
BBNA 40·RANDOMIZE·TIME:M=X*3:FIRST=M-X:B=INT(
     RND*(FIRST)):IF·B<1·THEN·40
GAJA 50·C=M-(X+B):IF·C<1·THEN·40
MALB 60·SECOND=(M-X):A=INT(RND*(SECOND)):IF·A
     <1·THEN·40
GAMA 70·H=M-(X+A):IF·H<1·THEN·40
FANO 80·C=M-(A+B):IF·C<1·THEN·40
FAKP 90·E=M-(C+H):IF·E<1·THEN·40
```

```
GAED 100·F=M-(X+C):IF·F<1·THEN·40
GADC 110·E=M-(H+C):IF·E<1·THEN·40
GAED 120·D=M-(X+E):IF·D<1·THEN·40
IAIE 130·LOCATE·20,9:PRINT·USING"####";B;
IALH 140·LOCATE·20,15:PRINT·USING"####";G;
IAKI 150·LOCATE·20,12:PRINT·USING"####";X;
IAPE 160·LOCATE·16,9:PRINT·USING"####";A;
IADI 170·LOCATE·24,15:PRINT·USING"####";H;
IACF 180·LOCATE·24,9:PRINT·USING"####";C;
IAEI 190·LOCATE·16,15:PRINT·USING"####";F;
IAHH 200·LOCATE·16,12:PRINT·USING"####";D;
IAIH 210·LOCATE·24,12:PRINT·USING"####";E;
OAAK 220·LOCATE·5,24:PRINT"Press·SPACEBAR·for
     ·another.."
GAMJ 230·WHILE·INKEY(47)<>0:WEND
BALK 240·RUN
```



Ah, now this really is the Manhattan skyline, or somewhere like that.

Alien Intervention

This month's final contribution is a game called Alien Intervention by Sean McManus of Stevenage in Herts (nice signature by the way). All instructions are included within the game.

```
HAGN 10·'·Alien·Intervention
KAMH 20·'·(c)·1991·Sean·McManus·-·1st·March
DCLJ 30·MEMORY·&44FF:RESTORE·180:FOR·g=0·TO·6
     6:READ·a$:a=VAL("&"+a$):POKE·40000+g,a:c
     hk=chk+a:NEXT:IF·6496<>chk·THEN·PRINT"Er
     ror·in·200":STOP
FDHF 40·mem=17664:FOR·g=1·TO·3:chk=0:FOR·h=1·
     TO·77:READ·a$:a=VAL("&"+a$):POKE·mem,a:m
     em=mem+1:chk=chk+a:NEXT:READ·chk$:IF·chk
     <>VAL("&"+chk$)·THEN·PRINT"Checksum"g"af
     ter·line·220·is·wrong.":STOP
EDEI 50·NEXT:MODE·1:INK·2,0:INK·0,0:BORDER·0:
     PEN·2:PAPER·0:FOR·g=1·TO·16:READ·a$:LOCA
     TE·20-0.5*LEN(a$),g+5:PRINT·a$;:NEXT:INK
     ·3,3:INK·1,25:PRINT·CHR$(23)CHR$(1);:FOR
     ·g=334·TO·50·STEP·-2:PLOT·1,g,3:DRAW·639
     ,g:NEXT:CALL·&BB06
PDCB 60·MODE·0:INK·0,0:BORDER·0:INK·14,2:INK·
     6,2:INK·8,1:x=40:y=350:a$="Alien·Interve
     ntion":GOSUB·250:x=300:y=330:a$="By":GOS
     UB·250:x=150:y=310:a$="Sean·McManus":GOS
     UB·250:x=200:y=220:a$=CHR$(164)+"MCMXCI"
     :GOSUB·250:x=120:y=70:a$="Press·any·Key
GDKM 70·GOSUB·250:SYMBOL·255,48,254,22,60,116
     ,210,254,16:a$=CHR$(255):x=300:y=160:GOS
     UB·250:INK·15,1:PLOT·1,1,8:DRAW·1,394:DR
     AW·634,394:DRAW·634,1:DRAW·1,1:PLOT·5,5,
     6:DRAW·5,399:DRAW·639,399:DRAW·639,5:DRA
     W·5,5:WHILE·INKEY$<>"":WEND:CALL·&BB06
IDHN 80·MODE·0:INK·1,26:INK·2,6:INK·3,15:INK·
     5,20:INK·6,2:INK·7,24:INK·8,1:INK·9,19:I
     NK·15,15,24:INK·14,24,15:INK·13,0,26:INK
     ·12,26,0:DEFINT·a-z:PAPER·8:FOR·g=0·TO·1
     9:CALL·40000,3,g,24:CALL·40000,3,g,17:PL
     OT·RND*640,RND*200+250,8:PLOTR·-4,0,5:PL
     OTR·-4,0,8
LDBF 90·PLOTR·4,4:PLOTR·0,-8:FOR·h=17·TO·17-(
     RND*4)·STEP·-1:LOCATE·g+1,h:PRINT"·";:NE
     XT·h,g:PAPER·0:PEN·1:LOCATE·1,11:PRINT·S
     PACE$(20);:FOR·g=1·TO·19·STEP·4:CALL·400
     00,3,g,17:CALL·40000,2,g,17:NEXT:PRINT·C
     HR$(23)CHR$(0);PLOT·1,1,8:DRAW·1,399:DRA
     W·639,399
FBKH 100·DRAW·639,1:WINDOW·#1,1,20,1,1:PAPER·
     #1,8:PEN·#1,1:PRINT#1,"·····GOOD·LUCK·!·
     ···"CHR$(23)CHR$(1);
MCLF 110·x=9:CALL·40000,1,x,10:GOSUB·240:EVER
     Y·30,1·GOSUB·190:SPEED·KEY·4,2:WHILE·p(f
     )<6:f=INT(RND*5):c=(f*4)+1:CALL·40000,2,
     c,0:FOR·h=1·TO·23-p(f):CALL·40000,2,c,h:
     CALL·40000,2,c,h-1:FOR·z=1·TO·5
ACEC 120·a$=UPPER$(INKEY$):IF·a$<>""·THEN·CAL
     L·40000,1,x,10:x=x+(a$="B")-(a$="N"):X=X
     -(X=0):X=X+(X=19):CALL·40000,1,x,10:IF·a
     $="·"·THEN·GOSUB·210
ICKH 130·NEXT:IF·h=9·AND·(c=x·OR·c=x+1)·THEN·
     CALL·40000,2,c,h:CALL·40000,5,c,h:score=
     score+10:PRINT#1,"Score:"score:GOSUB·260
     :CALL·40000,5,c,h:p(f)=p(f)-1:h=70
FBAC 140·NEXT:p(f)=p(f)+1:SOUND·7,956-p(f)*10
     0,5,15:WEND:IF·q=-1·THEN·g=REMAIN(2):GOS
     UB·240
OCPC 150·CALL·40000,4,MX,23+(MX/2=MX\2):g=REM
     AIN(1):h=c-mx:md=(h<0)+ABS(h>0):FOR·g=1·
     TO·ABS(h):mx=mx+md:CALL·40000,4,MX,23+(M
     X/2=MX\2):FOR·t=1·TO·250:NEXT:CALL·40000
     ,4,MX,23+(MX/2=MX\2):NEXT
IDHO 160·FOR·g=23·TO·16·STEP·-1:CALL·40000,4,
     MX,g:CALL·40000,2,mx,g:FOR·t=1·TO·250:NE
     XT:CALL·40000,4,MX,g:CALL·40000,2,mx,g:N
     EXT:PAPER·0:LOCATE·mx+1,17:PRINT"·";:CAL
     L·40000,4,mx,16:FOR·g=0·TO·15:PLOT·x*32+
     12,220,g:DRAW·mx*32+4,142:PLOTR·8,0
PCLD 170·DRAW·x*32+48,220:FOR·h=1·TO·50:NEXT·
     h,g:CALL·40000,1,x,10:CALL·40000,5,x,10:
     CALL·40000,5,x+1,10:FOR·h=1·TO·150:NEXT:
     CALL·40000,5,x,10:CALL·40000,5,x+1,10:LO
     CATE·3,7:PRINT"G·a·m·e··O·v·e·r":GOSUB·2
     00
OCGM 180·CALL·&BB06:RUN·60:DATA·DD,6E,00,DD,6
     6,02,DD,7E,04,F5,CD,1A,BC,F1,E5,6F,26,00
     ,29,01,77,9C,09,4E,23,46,50,59,69,60,4E,
     23,13,13,46,E1,C5,E5,1A,AE,77,23,13,10,F
     9,E1,01,00,08,09,C1,0D,20,EE,C9,00,45,03
     ,45,45,45,67,45,89,45,AB,45
HDEH 190·IF·q<>-1·THEN·CALL·40000,4,MX,23+(MX
     /2=MX\2):MX=MX+MD:CALL·40000,4,MX,23+(MX
     /2=MX\2):IF·MX=0·OR·MX=19·OR·RND>0.7·THE
     N·MD=-MD:DATA·01,01,00,00,00,00,00,01,56
     ,A1,02,00,00,01,03,56,D0,D0,81,03,02,56,
     D4,C0,E0,F0,F0,F0,A1,C0,D0,78,3C,D4,D4,C
     0,F0,A1,E0,C0
EDHB 200·RETURN:DATA·C0,C0,C0,C3,52,02,43,C3,
     D2,D2,C3,03,01,00,01,03,03,03,03,02,00,0
     0,00,BF,BF,BF,BF,00,00,08,04,40,02,00,81
     ,50,FC,1BD2,F4,A9,54,F8,E8,81,40,03,03,A
     8,40,02,00,81,50,E8,F4,A9,40,F8,D4,81,54
     ,03,03,A9,00,04,F0,F0,F0,F0,D4,D4,D4,D4,
     D4,D4,D4,D4,FC
HCDI 210·PLOT·x*32+12,220,15:DRAWR·0,-224:PLO
     T·x*32+48,220:DRAWR·0,-224:GOSUB·270:DAT
     A·FC,FC,FC,EC,EC,EC,EC,CC,CC,CC,CC,8C,8C
     ,8C,8C,08,08,08,08,08,04,40,94,68,80,C0,
     C0,C0,C0,91,E2,91,E2,68,94,68,2D07
IDKE 220·IF·x=mx·OR·x+1=mx·THEN·q=-1:CALL·400
     00,4,MX,23+(MX/2=MX\2):CALL·40000,5,mX,2
     3+(MX/2=MX\2):score=score+100:PRINT#1,"S
     core:"score:FOR·g=1·TO·30:NEXT:CALL·4000
     0,5,mX,23+(MX/2=MX\2):mx=-1:AFTER·150,2·
     GOSUB·240:GOSUB·260
FDBG 230·PLOT·x*32+12,220,15:DRAWR·0,-224:PLO
     T·x*32+48,220:DRAWR·0,-224:RETURN:DATA·9
     4,16,56,89,29,29,8C,1C,16,16,16,03,29,29
     ,68,94,16,08,04,00,46,00,00,01,06,03,00,
     06,DC,0C,03,4C,F8,EC,8C,C8,E0,E0,C4,06,F
     8,AC,8C,04,DC,8C,03,01,8C,89,00,00,00,00
     ,00,00,00,00,00
MBGH 240·mx=INT(RND*19):md=1:CALL·40000,4,MX,
     23+(MX/2=MX\2):q=0:RETURN:DATA·00,00,00,
     00,00,00,00,00,00,00,00,00,00,00,00,00,0
     0,00,101C
HEAI 250·PRINT·CHR$(23)CHR$(1);:TAG:GRAPHICS·
     PEN·6:MOVE·x,y:PRINT·a$;:GRAPHICS·PEN·8:
     MOVE·x-5,y-5:PRINT·a$;:TAGOFF:RETURN:DAT
     A·Alien·Intervention·-·Instructions,,Lon
     g·ago·banished·to·below·the·planet,"surf
     ace,·the·Rivanves·are·trying·to"
EEHI 260·FOR·g=15·TO·6·STEP·-2:SOUND·1,956,g/
     3,g,0,0,g:SOUND·2,456,g/3,g,0,0,g:SOUND·
     4,239,g/3,g,0,0,g:NEXT:RETURN:DATA·escap
     e·using·ladders·dropped·in·by·the,Nemas.
     ··Your·job·is·to·intercept,"these·delive
     ries,·smashing·the·ladders."
EECC 270·SOUND·1,239,5,15:SOUND·1,479,5,15:SO
     UND·1,239,5,15:FOR·g=1·TO·15·STEP·2:SOUN
     D·2,239-g*3,2,15:SOUND·4,956,2,g:NEXT:RE
     TURN:DATA·"The·first·job·of·any·escaping
     ·Rivanve",will·be·your·extermination.,Yo
     u·may·zap·the·little·darlings·for
PBJO 280·DATA·"extra·points·and·great·satisfa
     ction.",,"Keys","B=Left;·N=Right;·SPC=Fi
     re",,"Press·any·Key"
```



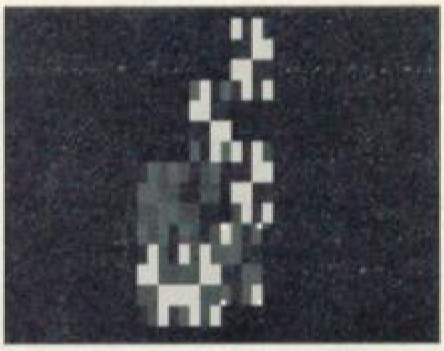
Looks bizarre, doesn't it? But don't worry, the instructions are in the game.

Pathways. TCK

Gavin Gilchrist sent us this very strange little puzzle game, involving lots of little multi-coloured squares, with which you play a sort of complex version of dominoes. Instructions are on screen.

```
DAJP 10·'Pathways
HACC 20·'by·Gavin·Gilchrist
AAKK 30·'
GAMC 40·'Initialisation
DADJ 50·DIM·crd$(42)
KALJ 60·jy=1:lt=74:rt=75:up=72:do=73:pl=76
JBLA 70·GOSUB·1450:MODE·1:INK·0,0:BORDER·0:IN
     K·1,26:INK·2,0:INK·3,1:LOCATE·1,25:PAPER
     ·0:PEN·2:PRINT"PATHWAYS"
AAPK 80·'
HAGB 90·'Title·screen/Menu
LAMM 100·FOR·tx=0·TO·126·STEP·2:FOR·ty=0·TO·1
     4·STEP·2
EBFH 110·IF·TEST(tx,ty)=2·THEN·PLOT·tx*2+192,
     ty*2+355,1:PLOTR·0,2:PLOTR·2,0:PLOTR·0,-
     2
HAMP 120·NEXT·ty,tx:WINDOW·1,40,4,24
OABL 130·PEN·1:LOCATE·12,2:PRINT·CHR$(164)"·G
     avin·Gilchrist"
JAKI 140·LOCATE·10,6:PRINT·"1·-·PLAY·THE·GAME
     "
```

```
JADM 150·LOCATE·10,9:PRINT·"2·-·INSTRUCTIONS"
IBBL 160·LOCATE·10,12:IF·jy=1·THEN·PRINT·"3·-
     ·";:PRINT·CHR$(24)CHR$(1)"JOYSTICK"CHR$(
     24)CHR$(0)"/CURSOR·KEYS"
DBJE 170·IF·jy=0·THEN·PRINT·"3·-·JOYSTICK/"CH
     R$(24)CHR$(1)"CURSOR·KEYS"CHR$(24)CHR$(0
     )
DAPB 180·a$=INKEY$
EAKK 190·IF·a$="1"·THEN·380
EAMJ 200·IF·a$="2"·THEN·230
GACK 210·IF·a$="3"·THEN·330·ELSE·180
AALN 220·'
FABP 230·'Instructions
HAMC 240·CLS:LOCATE·15,1:PRINT"INSTRUCTIONS"
HCPJ 250·PRINT"··In·PATHWAYS,·the·object·of·t
     he·game·isto·match··the··colours·on··the
     ·cards··tomake·as·many·long·pathways·as·
     you·can."
HDGK 260·PRINT"··Every··time·you·add·to·a·pat
     hway,··youreceive··a·point··for·ALL··squ
     ares·in·itso·the··longer··the··pathway,·
     ·the··morepoints·are·scored."
AEEC 270·PRINT"··Cards··are··given·at··random
     ,··and·youhave·to·place··them·in·such··a
     ·way··thatwill·match·the·most·colours·an
     d·make·thelongest··pathways,··to·give··a
     s·large··ascore·as·possible.·";
ECED 280·PRINT"··Keep··a··record·of··your·own
     ··personalbest··score,··and·try·to··impr
     ove··on·iteach·time·you·play."
OCNA 290·PRINT"··Use··joystick·or··cursor·key
     s··to·movethe·cursor,·fire·or·COPY·to·pl
     ay·a·card,'I'·to·invert·the·current··pie
     ce·and·'Q'to·quit."
KAKC 300·PRINT·SPACE$(14)"PRESS·A·KEY":CALL·&
     BB18
DAML 310·CLS:GOTO·130
AAMN 320·'
IAEA 330·'Select·Joysick/Keys
DAIB 340·jy=1-jy
MAHM 350·IF·jy=0·THEN·lt=8:rt=1:up=0:do=2:pl=
     9:GOTO·160
OAMN 360·IF·jy=1·THEN·lt=74:rt=75:up=72:do=73
     :pl=76:GOTO·160
AABO 370·'
EABA 380·'Main·Game
GBLO 390·MODE·0:INK·0,0:INK·1,26:INK·2,6:INK·
     3,24:INK·4,9:INK·5,2:scr=0:cr=42:ist=1:c
     x=288:cy=254
OAHI 400·PLOT·639,1,1:DRAW·639,60,1:DRAW·1,60
     ,1:DRAW·1,1,1:DRAW·639,1,1
ABIH 410·LOCATE·2,23:PRINT"CARD.···SCORE":LOC
     ATE·2,24:PRINT"HELD.···CARDS"
MAJH 420·rcn=INT(RND*cr)+1:cur$=crd$(rcn):ert
     =0
CBBA 430·LOCATE·15,23:PRINT·scr:LOCATE·15,24:
     PRINT·cr:x=193:y=46:GOSUB·1320
GAMD 440·IF·cr=0·THEN·GOTO·1280
AAAO 450·'
GAFI 460·'Cursor·routine
BCNB 470·a=TEST(cx,cy):b=TESTR(28,0):c=TESTR(
     0,-30):d=TESTR(-28,0):PLOT·cx,cy,1:PLOTR
     ·28,0:PLOTR·0,-30:PLOTR·-28,0:FOR·de=0·T
     O·20:NEXT
PAAF 480·IF·INKEY(lt)=0·AND·cx>1·THEN·GOSUB·5
     60:cx=cx-8:GOTO·470
PABM 490·IF·INKEY(rt)=0·AND·cx<609·THEN·GOSUB
     ·560:cx=cx+8:GOTO·470
PAAM 500·IF·INKEY(up)=0·AND·cy<398·THEN·GOSUB
     ·560:cy=cy+8:GOTO·470
PACK 510·IF·INKEY(do)=0·AND·cy>102·THEN·GOSUB
     ·560:cy=cy-8:GOTO·470
HAON 520·IF·INKEY(pl)=0·THEN·GOTO·600
NAME 530·IF·INKEY(35)=0·THEN·GOSUB·560:ert=1-
     ert:GOTO·430
HACE 540·IF·INKEY(67)=0·THEN·GOTO·70
CAPK 550·GOTO·480
OAMJ 560·PLOT·cx,cy,a:PLOTR·28,0,b:PLOTR·0,-3
     0,c:PLOTR·-28,0,d
CAMJ 570·RETURN
AAEO 580·'
FABH 590·'Place·a·piece
CABP 600·GOSUB·560
JAFF 610·IF·a>0·OR·b>0·OR·c>0·OR·d>0·THEN·470
FACD 620·IF·ist=1·THEN·680
MAHC 630·IF·TEST((cx-4),cy)>0·OR·TESTR(0,-30)
     >0·THEN·680
MAHF 640·IF·TEST((cx+32),cy)>0·OR·TESTR(0,-30
     )>0·THEN·680
LAPP 650·IF·TEST(cx,(cy+2))>0·OR·TESTR(28,0)>
     0·THEN·680
MAFD 660·IF·TEST(cx,(cy-32))>0·OR·TESTR(28,0)
     >0·THEN·680
CABL 670·GOTO·470
IABL 680·ist=0:x=cx:y=cy:GOSUB·1320
AAGO 690·'
GAJN 700·'Scoring·routine
FAAO 710·tsc=0:sn=0:sna=0
PBPJ 720·f=0:tx=cx-8:ty=cy:IF·sn=13·OR·sna=13
     ·THEN·f=1:GOTO·730·ELSE·IF·TEST(tx,ty)=T
     EST(cx,cy)·THEN·f=1:fd=2:GOSUB·990
OBMC 730·tx=cx:ty=cy+8:IF·sn=1·OR·sna=1·THEN·
     f=1:GOTO·740·ELSE·IF·TEST(tx,ty)=TEST(cx
     ,cy)·THEN·f=1:fd=3:GOSUB·990
GAKN 740·IF·f=1·THEN·tsc=tsc+1
PBLO 750·f=0:tx=cx+32:ty=cy:IF·sn=5·OR·sna=5·
     THEN·f=1·GOTO·760·ELSE·IF·TEST(tx,ty)=TE
     ST(cx+24,cy)·THEN·f=1:fd=4:GOSUB·990
PBLF 760·tx=cx+24:ty=cy+8:IF·sn=4·OR·sna=4·TH
     EN·f=1:GOTO·770·ELSE·IF·TEST(tx,ty)=TEST
     (cx+24,cy)·THEN·f=1:fd=3:GOSUB·990
GAMN 770·IF·f=1·THEN·tsc=tsc+1
ACHN 780·f=0:tx=cx-8:ty=cy-24:IF·sn=16·OR·sna
     =16·THEN·f=1:GOTO·790·ELSE·IF·TEST(tx,ty
     )=TEST(cx,cy-24)·THEN·f=1:fd=2:GOSUB·990
PBAA 790·tx=cx:ty=cy-32:IF·sn=9·OR·sna=9·THEN
     ·f=1:GOTO·800·ELSE·IF·TEST(tx,ty)=TEST(c
     x,cy-24)·THEN·f=1:fd=1:GOSUB·990
GAHN 800·IF·f=1·THEN·tsc=tsc+1
BCLC 810·f=0:tx=cx+32:ty=cy-24:IF·sn=8·OR·sna
     =8·THEN·f=1:GOTO·820·ELSE·IF·TEST(tx,ty)
     =TEST(cx+24,cy-24)·THEN·f=1:fd=4:GOSUB·9
     90
ACDH 820·tx=cx+24:ty=cy-32:IF·sn=12·OR·sna=12
     ·THEN·f=1:GOTO·830·ELSE·IF·TEST(tx,ty)=T
     EST(cx+24,cy-24)·THEN·f=1:fd=1:GOSUB·990
GAKN 830·IF·f=1·THEN·tsc=tsc+1
ACBH 840·f=0:tx=cx-8:ty=cy-8:IF·sn=14·OR·sna=
     14·THEN·f=1:GOTO·850·ELSE·IF·TEST(tx,ty)
     =TEST(cx,cy-8)·THEN·f=1:fd=2:GOSUB·990
OBLP 850·tx=cx+8:ty=cy+8:IF·sn=2·OR·sna=2·THE
     N·f=1:GOTO·860·ELSE·IF·TEST(tx,ty)=TEST(
     cx+8,cy)·THEN·f=1:fd=3:GOSUB·990
GAPN 860·IF·f=1·THEN·tsc=tsc+3
ACHN 870·f=0:tx=cx+32:ty=cy-8:IF·sn=6·OR·sna=
     6·THEN·f=1:GOTO·880·ELSE·IF·TEST(tx,ty)=
     TEST(cx+24,cy-8)·THEN·f=1:fd=4:GOSUB·990
PBBG 880·tx=cx+16:ty=cy+8:IF·sn=3·OR·sna=3·TH
     EN·f=1:GOTO·890·ELSE·IF·TEST(tx,ty)=TEST
     (cx+16,cy)·THEN·f=1:fd=3:GOSUB·990
GACO 890·IF·f=1·THEN·tsc=tsc+3
ACLM 900·f=0:tx=cx-8:ty=cy-16:IF·sn=15·OR·sna
     =15·THEN·f=1:GOTO·910·ELSE·IF·TEST(tx,ty
     )=TEST(cx,cy-16)·THEN·f=1:fd=2:GOSUB·990
ACDB 910·tx=cx+8:ty=cy-32:IF·sn=10·OR·sna=10·
     THEN·f=1:GOTO·920·ELSE·IF·TEST(tx,ty)=TE
     ST(cx+8,cy-24)·THEN·f=1:fd=1:GOSUB·990
GAMN 920·IF·f=1·THEN·tsc=tsc+3
BCBD 930·f=0:tx=cx+32:ty=cy-16:IF·sn=7·OR·sna
     =7·THEN·f=1:GOTO·940·ELSE·IF·TEST(tx,ty)
     =TEST(cx+24,cy-16)·THEN·f=1:fd=4:GOSUB·9
     90
```



It's still looking weird. But it is fun. Honest.

```
ACJH 940·tx=cx+16:ty=cy-32:IF·sn=11·OR·sna=11
     ·THEN·f=1:GOTO·950·ELSE·IF·TEST(tx,ty)=T
     EST(cx+16,cy-24)·THEN·f=1:fd=1:GOSUB·990
GAPN 950·IF·f=1·THEN·tsc=tsc+3
CACO 960·GOTO·1270
AAHO 970·'
GALN 980·'Pathway·lengths
DAPO 990·tsc=tsc+1
IBKI 1000·IF·tx>=cx·AND·tx<cx+32·AND·ty<=cy·A
     ND·ty>cy-32·THEN·GOTO·1120·ELSE·tat=TEST
     (tx,ty)
LACH 1010·IF·fd=1·THEN·1030·ELSE·tc=TEST(tx,t
     y+8)
PAHA 1020·IF·tc=tat·THEN·ty=ty+8:fd=3:tsc=tsc
     +1:GOTO·1000
LAHH 1030·IF·fd=2·THEN·1050·ELSE·tc=TEST(tx+8
     ,ty)
PAIA 1040·IF·tc=tat·THEN·tx=tx+8:fd=4:tsc=tsc
     +1:GOTO·1000
LAOH 1050·IF·fd=3·THEN·1070·ELSE·tc=TEST(tx,t
     y-8)
PALA 1060·IF·tc=tat·THEN·ty=ty-8:fd=1:tsc=tsc
     +1:GOTO·1000
LADI 1070·IF·fd=4·THEN·1090·ELSE·tc=TEST(tx-8
     ,ty)
PAMA 1080·IF·tc=tat·THEN·tx=tx-8:fd=2:tsc=tsc
     +1:GOTO·1000
CAKM 1090·RETURN
BAJA 1100·'
BAHB 1110·'Loops
EABB 1120·tsc=tsc-1
IAAB 1130·lbx=tx-cx:lby=ty-cy
GAFC 1140·IF·sn>0·THEN·GOTO·1200
HAML 1150·IF·fd=1·THEN·sn=(lbx+8)/8
IANI 1160·IF·fd=2·THEN·sn=-(lby-8)/8+4
IADC 1170·IF·fd=3·THEN·sn=(lbx+8)/8+8
IAAI 1180·IF·fd=4·THEN·sn=-(lby-8)/8+12
CALM 1190·RETURN
IAJB 1200·IF·fd=1·THEN·sna=(lbx+8)/8
IAKK 1210·IF·fd=2·THEN·sna=-(lby-8)/8+4
IAAI 1220·IF·fd=3·THEN·sna=(lbx+8)/8+8
IANN 1230·IF·fd=4·THEN·sna=-(lby-8)/8+12
CAHM 1240·RETURN
BAPA 1250·'
HAMP 1260·'End·of·game·routine
PAFL 1270·scr=scr+tsc:crd$(rcn)=crd$(cr):cr=c
     r-1:GOTO·420
JBAB 1280·CLS:MODE·1:LOCATE·1,12:PRINT·"GAME·
     COMPLETED·-·YOU·SCORED";scr;"POINTS":FOR
     ·de=1·TO·2000:NEXT
CALK 1290·GOTO·60
BALA 1300·'
EAEH 1310·'Draw·card·
HAIL 1320·IF·ert=0·THEN·1330·ELSE·1380
HCJE 1330·FOR·xx=1·TO·4:pn=ASC(MID$(cur$,xx,1
     ))-63:psx=(xx-1)*8+x:FOR·dn=0·TO·-6·STEP
     ·-2:PLOT·psx,(y+dn),pn:PLOT·(psx+4),(y+d
     n),pn:NEXT·dn:NEXT·xx
ICOF 1340·FOR·xx=1·TO·4:pn=ASC(MID$(cur$,(xx+
     4),1))-63:psx=(xx-1)*8+x:FOR·dn=-8·TO·-1
     4·STEP·-2:PLOT·psx,(y+dn),pn:PLOT·(psx+4
```

Cracking The Codes

If you haven't got Type Writer (the Type-In checker), we've got an equivalent program that's even easier to use:

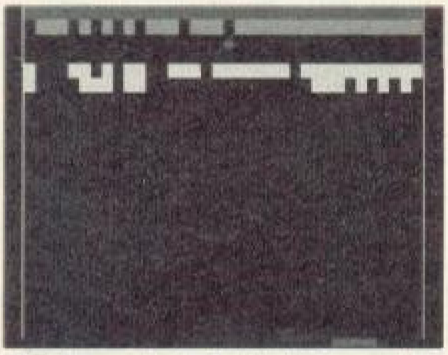
```
PAML 10·'·TypeChecker·V1.0·-·By·Simon·Forrest
     er·-·Dec·1992
MAOJ 20·'·For·Amstrad·Action·-·Public·Domain
DANK 30·MEMORY·&9FFF
CAJK 40·csum=0
CAME 50·FOR·addr=&A000·TO·&A05B
DAKJ 60·READ·byte$
CAJE 70·byte=VAL("&"+byte$)
FACF 80·POKE·addr,byte
CAFE 90·csum=csum+byte
DALK 100·NEXT·addr
OACI 110·IF·csum<>&2ADD·THEN·PRINT·"Checksum·
     Error":END
LANE 115·POKE·&A001,PEEK·(&BB5B):POKE·&A002,P
     EEK·(&BB5C)
KAHI 120·POKE·&BB5A,&C3:POKE·&BB5B,&3:POKE·&B
     B5C,&A0
MACN 130·PRINT·"TypeChecker·V1.0·Installed":E
     ND
MABC 140·DATA·CF,FE,93,FE,0A,CA,00,A0,F5,C5,D
     5,E5,FE,0D,CA,22
LACJ 150·DATA·A0,5F,16,00,2A,5A,A0,19,22,5A,A
     0,E1,D1,C1,F1,C3
LAFJ 160·DATA·00,A0,3E,20,CD,00,A0,3E,18,CD,0
     0,A0,2A,5A,A0,7C
LADI 170·DATA·CD,45,A0,7D,CD,45,A0,3E,18,CD,0
     0,A0,21,00,00,22
LACN 180·DATA·5A,A0,C3,1B,A0,F5,E6,0F,C6,41,C
     D,00,A0,F1,E6,F0
KAJC 190·DATA·1F,1F,1F,1F,C6,41,CD,00,A0,C9,0
     0,00,END
```

The program will not provide a correct code while you are typing the program, only when it is LISTed afterwards. YOU MUST NOT ENTER THE CHECKSUM CODES THEMSELVES.

```
     ),(y+dn),pn:NEXT·dn:NEXT·xx
ICEJ 1350·FOR·xx=1·TO·4:pn=ASC(MID$(cur$,(9-x
     x),1))-63:psx=(xx-1)*8+x:FOR·dn=-16·TO·-
     22·STEP·-2:PLOT·psx,(y+dn),pn:PLOT·(psx+
     4),(y+dn),pn:NEXT·dn:NEXT·xx
ICPI 1360·FOR·xx=1·TO·4:pn=ASC(MID$(cur$,(5-x
     x),1))-63:psx=(xx-1)*8+x:FOR·dn=-24·TO·-
     30·STEP·-2:PLOT·psx,(y+dn),pn:PLOT·(psx+
     4),(y+dn),pn:NEXT·dn:NEXT·xx
CALM 1370·RETURN
ICBA 1380·FOR·xx=1·TO·4:pn=ASC(MID$(cur$,(5-x
     x),1))-63:psx=(xx-1)*8+x:FOR·dn=0·TO·-6·
     STEP·-2:PLOT·psx,(y+dn),pn:PLOT·(psx+4),
     (y+dn),pn:NEXT·dn:NEXT·xx
ICKG 1390·FOR·xx=1·TO·4:pn=ASC(MID$(cur$,(9-x
     x),1))-63:psx=(xx-1)*8+x:FOR·dn=-8·TO·-1
     4·STEP·-2:PLOT·psx,(y+dn),pn:PLOT·(psx+4
     ),(y+dn),pn:NEXT·dn:NEXT·xx
ICJI 1400·FOR·xx=1·TO·4:pn=ASC(MID$(cur$,(xx+
     4),1))-63:psx=(xx-1)*8+x:FOR·dn=-16·TO·-
     22·STEP·-2:PLOT·psx,(y+dn),pn:PLOT·(psx+
     4),(y+dn),pn:NEXT·dn:NEXT·xx
HCIN 1410·FOR·xx=1·TO·4:pn=ASC(MID$(cur$,xx,1
     ))-63:psx=(xx-1)*8+x:FOR·dn=-24·TO·-30·S
     TEP·-2:PLOT·psx,(y+dn),pn:PLOT·(psx+4),(
     y+dn),pn:NEXT·dn:NEXT·xx
CAHM 1420·RETURN
BAPA 1430·'
IAPK 1440·'Dimension·card·array
IAKD 1450·RESTORE·1470:FOR·ftn=1·TO·42
LABO 1460·READ·dat$:crd$(ftn)=dat$:NEXT:RETUR
     N
DBLO 1470·DATA·CBABBBAA,DCBDCCBB,DACAAACC,CDA
     CDDAA,CACAAACC,DADBAADD,CADAAADD,DABAAAB
     B
EBCA 1480·DATA·ACDACCDD,DCDBCCDD,CDCADDCC,DBA
     DBBAA,ADCDDDCC,BABAAABB,CBCABBCC,BCBACCB
     B
DBIP 1490·DATA·BADAAADD,ADBDDDBB,BACAAACC,ABD
     ABBDD,DBABBBAA,DCACCCAA,CDBDDDBB,DBCBBBC
     C
DBNO 1500·DATA·CBDCBBDD,BCBCCCBB,BADBAADD,CAB
     CAABB,BCDBCCDD,DADAAADD,CABAAABB,ACBACCB
     B
IBII 1510·DATA·BCDCCCDD,BACBAACC,DADCAADD,BDB
     CDDBB,CBCDBBCC,BDBDDDBB,DCDCCCDD,DCADCCA
     A,BDBADDBB,BCACCCAA
```

Smasher. TKC

Sent in by K Scanlon, *Smasher* is a nice little *Breakout* clone, though in this version you have to not only break out, but destroy all the blocks as well. Use the cursor keys to move your bat.



It looks very simple, but it's tricky enough.

```
HAND 10·'SMASHER·by·K.Scanlon·
JBAJ 20·'Use·left·and·right·on·joystick·or·le
     ft·and·right·cursor·keys·to·move
AAKK 30·'
BDML 35·CLS:PRINT"To·FiNiSh·ThE·gAmE·yOu·MuSt
     ·UsE·tHe·BaT·tO·dEfLeCt·ThE·bOmB·aNd·DeS
     tRoY·tHe·WallS!":PRINT·SPACE$(100):INPUT
     "CONTINUE·(Y/N)";a$:IF·a$="Y"·OR·a$="y"·
     ·GOTO·40·ELSE·RETURN
OALH 40·MODE·1:BORDER·0:SPEED·INK·75,75:INK·1
     ,24:INK·2,15:INK·3,9,18
DADO 50·SPEED·KEY·15,2
EAFI 60·ENV·1,1,18,0,11,0,10
DAIA 70·ENT·1,10,2,2
EALF 80·ENV·3,1,0,16,5,-3,2
FALN 90·ENV·2,5,3,3,1,-21,22,9,-3,2
HAIE 100·ENT·-2,10,2,2,5,-7,1,2,11,3,2,-4,8
AAJN 110·'
AAKN 120·'
MAGC 130·MOVE·-30,32:DRAWR·0,400,1:MOVE·610,3
     2:DRAWR·0,400,1
JAND 140·PEN·3:LOCATE·3,1:PRINT·STRING$(36,14
     3)
JAOO 150·PEN·2:LOCATE·3,2:PRINT·STRING$(36,14
     3)
PAHH 160·PEN·1:FOR·r=5·TO·6:LOCATE·3,r:PRINT·
     STRING$(36,143):NEXT·r
CAIA 170·bx=9
GABB 180·lives=5:score=0
HAHL 190·PEN·1:GOSUB·680:CLEAR·INPUT
KAAG 200·IF·INKEY$<>CHR$(32)·AND·JOY(0)<16·TH
     EN·200
OAEO 210·LOCATE·11,23:PRINT·SPACE$(20):LOCATE
     ·1,24:PRINT·SPACE$(40);
HAGJ 220·GOSUB·690:GOSUB·660:GOTO·280
AAMN 230·'
AANN 240·'
MALJ 250·LOCATE·bx,24:PRINT"··";STRING$(4,131
     );"··":RETURN
AAPN 260·'
AAAO 270·'
KABO 280·xa=1:ya=1:IF·INT(RND*2)=1·THEN·xa=-x
     a
EAAG 290·PEN·1:GOSUB·250
DALI 300·ORIGIN·0,400
HAGC 310·x=bx+4:y=11:x1=x:y1=y
AAMN 320·'
AANN 330·'
FAIL 340·x1=x+xa:y1=y+ya
IAND 350·IF·x1=3·OR·x1=38·THEN·xa=-xa
CACP 360·GOSUB·540
ECFG 370·IF·y1=24·AND·x1>bx+1·AND·x1<bx+6·THE
     N·ya=-ya:y1=y1-2:SOUND·130,44,8,7,1,1:a=
     ((x)bx+5)OR(x<bx+2)):IF·a=-1·THEN·xa=xa*
     a:x1=x1+xa:y1=y1+1
LAPG 380·IF·y1=25·THEN·LOCATE·x,y:PRINT"·":GO
     TO·500
CADP 390·GOSUB·250
HACC 400·t=TEST((16*x1)-1,-(16*y1)-1)
KBPC 410·IF·t<>0·THEN·ya=-ya:xz=x1:yz=y1:y1=y
     1+ya:GOSUB·590:IF·t=2·THEN·score=score+1
     0:GOSUB·660
LAAD 420·IF·t=3·THEN·score=score+20:GOSUB·660
LACA 430·IF·t=1·THEN·score=score+5:GOSUB·660
FAGD 440·IF·y1=1·THEN·ya=1
EBPO 445·SYMBOL·AFTER·240:SYMBOL·240,&X10,&X1
     00,&X1000,&X11100,&X1111110,&X11111111,&
     X1111110,&X111100
BBLF 450·LOCATE·x,y:PRINT·"·":PEN·3:LOCATE·x1
     ,y1:PRINT·CHR$(240):x=x1:y=y1
LAKO 460·IF·y=1·OR·x=3·OR·x=38·THEN·SOUND·129
     ,78,8,7,1,1
CALK 470·GOTO·340
AADO 480·'
AAEO 490·'
BBPF 500·lives=lives-1:SOUND·132,19,46,12,2,2
     :IF·lives=0·THEN·GOTO·620
FAPB 510·GOSUB·660:GOTO·280
AAON 520·'
AAPN 530·'
PAPO 540·IF·(INKEY(8)=0·OR·INKEY(74)=0)·AND·b
     x>2·THEN·bx=bx-2:RETURN
ABJB 550·IF·(INKEY(1)=0·OR·INKEY(75)=0)·AND·b
     x<32·THEN·bx=bx+2:RETURN
CALJ 560·RETURN
AADO 570·'
AAEO 580·'
JAMA 590·LOCATE·xz,yz:PRINT·"·":RETURN
AANN 600·'
AAON 610·'
MADG 620·IF·score>hiscore·THEN·hiscore=score
XAOK 630·GOSUB·660:score=0:lives=5:GOTO·130
AABO 640·'
AACO 650·'
BBLO 660·SOUND·130,0,20,13,3,0,31:LOCATE·1,25
     :PRINT·TAB(4)"HiScOrE";hiscore;
EBNP 670·LOCATE·18,25:PRINT"ScOrE";score:LOCA
     TE·30,25:PRINT"LiVeS";lives:RETURN
OAKN 675·IF·STRING$(36,143)=0·THEN·CLS:PRINT·
     "YoU·HaVe·WoN!":END
OAIB 680·LOCATE·11,23:PRINT"PrEsS·SpAcE·To·St
     ArT":RETURN
JAMN 690·LOCATE·1,25:PRINT·SPACE$(40);:RETURN
```

That's pretty much your lot, but by the time you've typed that lot we'll be back with more. ●

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EUROPEAN ORDERS ACCEPTED

Public Image

If it's free or nearly free then this is the place to find out all about it. Tim Blackbond pushes his luck.

It's nice to see that Rod Lawton has now got a job on television playing the part of the baddie cowboy on the Alpen advert. Congratulations, Rod... You'll be hosting your own chat show soon. Unfortunately, there isn't space for Rogue Gallery or letters this month (not even the one from Simon Walker asking when Public Image will get four pages). Damn...

LOOSE TALK

GRAEME CHESSER PULLS OUT OF DOMAIN PD...

It's all change at the headquarters of Domain PD (and, for that matter, the magazine CPC Domain), again. Graeme Chesser has stopped running the library due to pressures of work and has handed it on to Barry Snell, the ex-editor of CPC Domain (apparently, Simon Warford has gone as well). This means that Barry has handed the CPC Domain editorship to the Subscriptions bod, John Fairlie. Now John Fairlie can't keep up with the work so if he can't find a new editor, CPC Domain will cease production. It's all very confusing, I'm going for a lie down...

G.D. PD GETS IT TAPED!

Dave Lawson has enlisted the help of Les Roach in order to supply software on cassette. If the tape subsidiary has the same quality as the disk library, it would be well worth sending an SAE to Mr. Roach. His address is:
18 Sutton Close, Elmfield, Ryde,
Isle of Wight PO33 1DA

SOFTWARE REVIEWS

Intergalactic Stuntparrot

By Robert Buckley
Available from G.D. PD on Games 15.

Parrots don't get a lot of publicity these days. I mean, when they do appear on television they're usually dead. That's why, when the Intergalactic Stuntparrot was asked, after ten years, to do the stunts for a new film, he darned near fell off his perch! *(Ho, ho. – Act Ed)*

The Stuntparrot has to do three different scenes, with a promise of almost certain death, should he fail. Such is the life of the (fanfare) Intergalactic Stuntparrot!

The first level involves retrieving a small (but valuable) bag of coins from the top of the screen. However, standing rather smugly between you and success is a series of lifts and small spiky things. Even the slightest contact with these spikes and you'll explode. Very difficult, this.

Stuntparrot then has to perform a daredevil leap over a row of cars. This is done by waggling the joystick left and right to pick up enough speed. Sadly, though, doing this doesn't even require effort, it's that easy.

The final screen is the best of the three. You have to judge the power of your jump from the high-board to land safely in the bucket of water. It requires excellent judgement skills, get the wrong power and you could either sail over the top of it or fall sadly short, both ways you end up scattered over a wide area...

On the whole, Stuntparrot is very enjoyable but the interest will go over a few weeks.

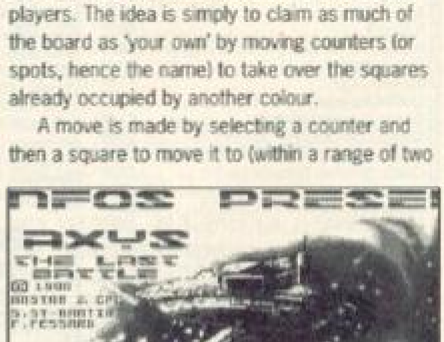
75%

Spots

By Julian Marek
Available from Amsof PD along with Axys.

Spots is a strategic board game for two to four players. The idea is simply to claim as much of the board as 'your own' by moving counters (or spots, hence the name) to take over the squares already occupied by another colour.

A move is made by selecting a counter and then a square to move it to (within a range of two



Look at that for a PD intro screen, missus. You don't get many of them to the pound.

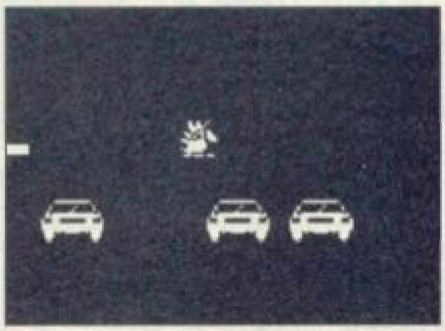
WATCHDOG

Fans of these PD pages will know my thoughts about new libraries: I don't see the point of hundreds of tiny services open just so kiddies can enjoy fifteen minutes of fame. It's okay to actually provide a service (such as importing software from Europe or contributing to the PD scene in general), but so few libraries do that these days. And I could list them. Most libraries today deal in all the things that can be obtained elsewhere, sometimes at cheaper prices. Despite this, even more libraries crop up all the time. Why? Who knows...

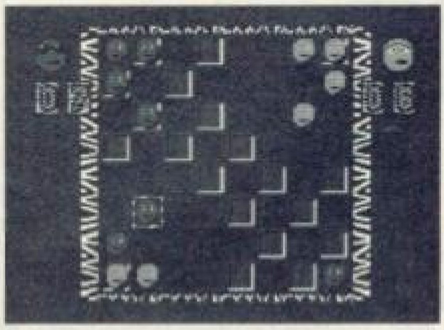
Lightning PD has a rather swish colour letterhead boasting that it's been open for some time. Actually, the library catalogue is of quite poor quality, there are ten double-sided collections and only one of which is originally written and compiled by Lightning Software, the others coming from the now-defunct Penguin Software. This for a quite expensive price of £1 each is quite off-putting.

C. Yates has opened **PowerHouse PD**, a tape-only library charging 50p for five programs. He has about 40 programs in stock, although I can't comment on the quality of the catalogue as I haven't been sent a list.

Not to be confused with PowerHouse PD, **Power PD** is ran by a certain Richard Wild (not to be confused with Sentinel Software's Richard Wildey). He charges a mere 25p per disk side from a choice of a seven collections. Even though the collections look to be self-compiled, it's nothing you can't get elsewhere, although the price is cheap.



So that thing that looks like a punk cat with a false nose is a stuntparrot. I see.



It's astonishing how many games can be played on an 8x8 grid. There's... ooh, loads.

squares). Then, all the surrounding spots change to your colour.

If you have no friend to challenge, the computer can play any number of the colours. Watch out, though, Arnie plays a pretty mean game – especially in four player mode where three of the colours are automatic!

There's a natty tune playing during the game or, if you prefer, just the simple spot-effects. *(You're getting good at these jokes. – Act Ed)* This, along with colourful sprites and a razor-sharp edge of addictiveness (the 'just-one-more-go' factor hits so hard it'll give you whiplash) makes it another one of the many reasons why Amstrad PD rules supreme. Just one final tip: Don't play it at parties. Okay, it will ensure that no-one mentions Trivial Pursuit, but you'll never get the guests home!

91%

FANZINE REVIEWS

This month, we have two magazines that each have their own PD libraries. All right, all right, ALL RIGHT! So there isn't a mention of the United Amstrad User Group magazine. Next issue, I promise...

Dragon News

Editor: Debby Howard
Update 8: Price unknown
10 Overton Road, Abbey Wood, London SE2 9SD

Dragon News is a real treat: Twenty A5 pages, especially for adventure fans and nothing else.

Not only has it got a review of new adventure (Dances With Bunny Rabbits), several tips, a list of adventure solutions, a report reasons to upgrade from a 464 to a 6128 and a huge list of commercial adventures for sale but also the complete Dragon PD software list.

Also in this issue is a celebration of the fact that Adventure PD (quite rightly) won the award for the best PD library at the 1992 Adventurers Convention. Adventure PD beat every other machine's libraries. Well done Debby!

The layout and quality of print is excellent (Debby uses Timeworks with an Atari ST) and although there isn't much in the way of clip art, it is still an informative and enjoyable read.

80%

AMSTRAD FUN

Editors: Keith Woods & John O' Brien
Issue 3: £1
8 Springfield Drive, Templeogue, Dublin, Ireland

Amstrad Fun is and A4 centre-stapled magazine (rather like this one) dealing with every aspect of the CPC (games, serious, public domain – the lot); all compressed into thirty-two pages.

The magazine features fourteen game reviews, a look at disk-zines in Britain and Europe, three pages of game cheats and the latest CPC news. The reviews are short but well written with some very witty bits and pieces scattered throughout.

Amstrad Fun also has its own PD library, so you can buy the PD reviewed directly from the same place you get the magazine.

But what of the quality? Each page has just the right mix of text and graphics, helped along by good use of screenshots in the game reviews section.

Unfortunately, the quality of the copying leaves a lot to be desired. Most of the text is solid black but little spots of grey attack every page, making some of the text extremely difficult to read.

The design has improved since issue one, but it still has quite a long way to go.

65%

Axys (The Last Battle)

By Fabien Fassard
Available from Amsof PD – Disk APG7

Shock horror! A bunch of leather-skinned armour-plated mutant killing machines from beyond the mystic moons of the planet whatsitsname have stolen our luncheon vouchers again. That's it, we'll go and blow their entire solar system up. Again. *(Oh no, not another day like yesterday. – Act Ed)*

It's the old tried and tested vertical scrolling shoot-'em-up that has been seen countless times before. There's the usual stuff: Extra weapons, pretty alien landscapes, gun turrets and masses of oncoming aliens.

Not any old aliens, though. These are the meanest, most dominant creatures in all of the seven known universes. What's more, they're all in a particularly bad mood.

The scrolling isn't the fastest in the world but this is made up for by the fact that there is never an empty screen. If this isn't enough, the end-of-level-baddies will make sure it will be a per-ritty long time before you complete this game.

85%

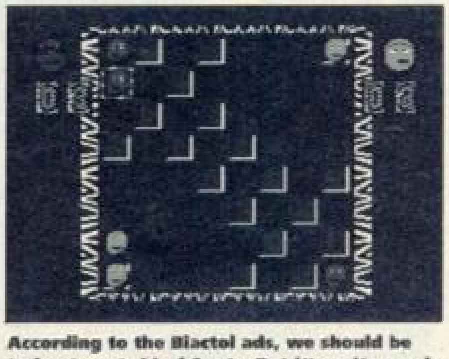
PD CHARTS

In conjunction with the Amstrad Fun review, here is the full top ten for the AF library. All software is available from Amstrad Fun (see fanzine review).

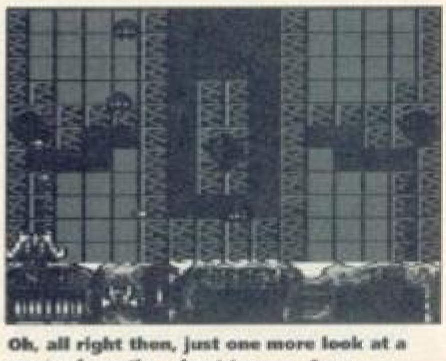
Position	Description	Order code
1	The Catalogue	00
2	Games 02	02
3	Paradise Demo	11/12
4	Eve Of Shadows	16
5	Amiga Graphics 1	14/156
6	Games 6	08
7	Games 1	01
8	Adventures 1	04
9	The Demo	09/10
10	Adventures 2	05



Come on, Vernon, we can't hang about, we've got loads of aliens to shoot.



According to the Biactol ads, we should be trying to get rid of Spots. But it's quite good.



Oh, all right then, just one more look at a screen from the shoot-'em-up, Axys.

AA SMALL ADS

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AMTIX magazine issues 0 to 18 (last published). Plus 2 binders. £25. **071-822-3727** ask for Roger.

LEATHER Goddesses of Phobos, Chase H.Q., Driller, Get Dexter 2, Laser Genius are just some of the CPC disks I have for sale. Also cassettes/books. Phone for list. **071-822-3727** ask for Roger.

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AMSTRAD Action Magazine no. 77-88 including cover tapes £30 o.n.o. Contact Hayley, 22 Dolfran, Mornington Meadows, Caerphilly, Mid Glamorgan, South Wales CF8 3QP.

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AMSTRAD FD1 second disk drive £75; Soft 968 Firmware manual £25; Dk'tronics 256K Silicon disk £50. All boxed as new. Call Lawrence **(0232) 653851 (Belfast).**

SOFT 158 Firmware spec for CPC464. Rarely used and in original case. Immaculate condition. £27.50 incl postage and packing. **(0869) 252510.**

AMSTRAD CPC 464 keyboard, green monitor, some games, manual, in nice condition. Bargain £85 one. Phone anytime up till 9pm **(Manchester) 061 998 5134.**

6128 with colour monitor, second drive, 2160 printer, all leads and manuals, many disks, including Supercalc 2, Tasword, Masterfile, some games, Sim City, many Railway Sims £350. Phone Martin **021-459-8990**

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ADVENTURE games for the CPC. Comprehensive range of new and re-issued software available now from Wow Software. 78 Radipole Lane, Weymouth, Dorset DT4 9RS. Send SAE for details of special offers.

AMSTRAD CPC464 with colour monitor and modulator which turns monitor into colour television. Many games and magazines. Bargain at £130. Must collect from Bristol. **Tel. David (0454) 632018.**

AMSTRAD CTM644 colour monitor £100. 128K ram expansion for 6128 £60. **Call 081-741-0478 West London.**

LOOK HERE! For great games, new releases at great prices for almost every home computer also Sega systems for sale. Even cartridges, even videos. **Phone now on (0902) 730992 for lists.**

Wanted

BOOK entitled "The Amstrad Basic Idea" also Jack Nicklaus Golf on 3" disk for 6128+. Other simulations considered (on disk) **Lincoln (0522) 510574.**

WANTED DESPERATELY: Jewels of Babylon by Interceptor Software, I will swap for three games. Also has anyone got a poke for Arkanoid II? **Phone after 4pm on weekdays. Carrickfergus 61496.**

DESPERATELY need AA's 1-66 with original tapes if applicable. Ask for Andy on **(0245) 261874 please!**

DOES ANYONE have a colour monitor for the CPC464 that I can have as I am very desperate for one. Will swap for green monitor or sell. **Phone 0376 518173.**

ANYONE who's got an Amstrad fruit machine for sale, I would like to buy it. I will pay a reasonable price for it. **Contact on Bedford 0234 841562 Mark Damon.**

WANTED games cartridges for Amstrad GX4000 **phone James 0504 352045 after 7pm.** P.S. Also require joystick for GX4000.

HELP! Urgently wanted: Tolkein's Trilogy on CPC464 (tape). **Phone Kris after 6.00pm on 0502 563194 (Lowestoft, Suffolk).**

WANTED: Elite and Star Raiders II (cass) must have instructions. Will pay or swap. Games include Smash TV, Turrican, Turrican II, Rick Dangerous. **Tel 061-793-0358 after 4 pm.**

WANTED URGENTLY - CPC6128 keyboard only. With working disk drive. Will pay about £50 to £70. **Telephone: 0623 843240 after 4pm.**

WANTED URGENTLY: User manual for Amstrad CPC6128. Also starter "Boot" disk for second hand computer. Will pay any reasonable price. **Tel Carol Brown on 0274 571250.**

ADVICE regarding 6128+ 1. How to connect cassette (With/without motor control) 2. Increase compatibility to run Elite (Disk version) Martin, 32 Grass Royal, Yeovil, Somerset BA21 4JW. **Tel (0935) 25974.**

AMSTRAD GX4000 console, complete and boxed as new, swap for printer. Also, wanted cheap plus or MSX cartridges. Martin, 32 Grass Royal, Yeovil, Somerset BA21 4JW. **Tel. (0935) 25974.**

AMSTRAD DMP 2000 printer or similar with manual required for CPC6128, will pay postage. Greenway, 45 Oakfield Road, Malvern, Worcs WR14 1DS. **Telephone 0684 573751 (evenings or weekends).**

WANTED colour printer for Amstrad 464/6128. **Please ring Matthew on 0582 405497.**

AMSTRAD DMP-1 printer for CPC464 will pay postage. Karl Caldwell, 18 Felton Close, Matchborough, Redditch, Worcs, B98 0AG. **0527 503004.**

Services

LONG ESTABLISHED User group superb range of services. PD, discounts, advice, contacts, secondhand hardware/software sales, intro pack: **SAE to UC (AA) Box 121, Gerrards Cross Bucks SL9 9JP. (0753) 884473**

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Other

AM-COM the ultimate Amstrad Fanzine. March edition now available. Price is £1.20 plus 60p P&P. Send Postal Orders only to **Gary Lewis, 20 Lancaster Terrace, Chester-Le-Street, County Durham DH3 3NW.**

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Power Up

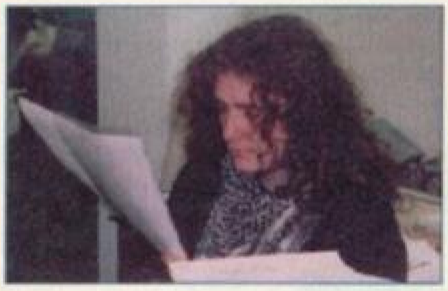
ACTION TEST pages 48-51 • ACTION REPLAY pages 64-65 • CHEAT MODE pages 52-54

So many people use their CPCs for educational stuff that we've reviewed two educational packages for you this month. And jolly good they are too.



Tim Norris

Tim took over as Acting Editor *(I have to be able to perform selected scenes from Waiting For Godot while I'm writing. – Act Ed)* and gave himself *Fun School 2* to review. We were quite pleased to see him, but he brought a lot of junk with him. You can just see Snoopy and the Statue Of Liberty on top of his monitor and behind him there's the bizarre white plastic hatstand he stole from another magazine. Thanks Tim.



Simon Forrester

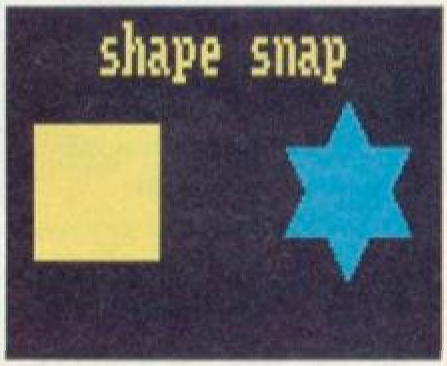
Simon's been working hard this month so we thought he ought to have a bit of a rest and review some nice stuff. He liked *Playdays* and we haven't been able to stop him playing *Super Space Invaders*, but *DJ Puff* provoked some rather vulgar language and we're sure his mother wouldn't be pleased. Oh, and he was so excited by the Hackit that he's nicked it. Can we have our gadget back, Si?



Nick Aspell

We thought you'd like to see pix of the whole team this month so we snapped this candid shot of Art Editor Nick sitting at his Mac. He's been the busiest of us all this month, trying to get the new cover design to look just right, so he hasn't been able to do anything exciting. Still, it's character building (at least that's what we told him when we went home for the evening and left him on his own, working long into the night). Thanks Nick.

Reviewed this month





Action replay

THIS MONTH'S RE-RELEASES

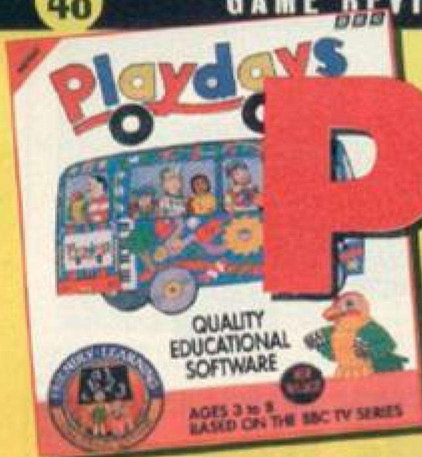


The hit parade

ELSPA PENGUIN CHARTS · GALLUP

1 TERMINATOR 2
Hit Squad

2 NEW ZEALAND STORY
Hit Squad
3 FUN SCHOOL 2 6-8 ....• Hit Squad
4 MAGIC LAND DIZZY ....• C/Masters
5 STREET FIGHTER ....• Kixx
6 GOLDEN AXE ....• Tronix
7 TRIVIAL PURSUIT ....• Hit Squad
8 AMERICAN TAG WRESTLING .....• Zeppelin
9 DIZZY: PRINCE OF YOLKFOLK ...• C/Masters
10SEYMOUR/HOLLYWOOD ....• C/Masters
11 MINI OFFICE ....• Alternative
12 CHUCKIE EGG ....• Pick/Choose
13FUN SCHOOL 2 OVER 8'S ....• Hit Squad
14 BUBBLE BOBBLE ....• Hit Squad
15 BUBBLE BOBBLE ....• Hit Squad
16 GRELL AND FELLA ....• C/Masters
17 FLIMBO'S QUEST ....• Kixx
18 RICK DANGEROUS 2 ....• Kixx
19 FUN SCHOOL 2 UNDER 6 ....• Hit Sqaud
20 PLAYDAYS ....• Alternative



Playdays

Alternative ■ (0977) 797777 ■ £12.99

Anxious to recreate his glorious pre-school achievements, Simon Forrester takes a trip in that bizarre bus to visit one of the best edutainment packages around.



Entering words can be a bit of a chore with this 'high score'-type arrangement.



He's right, you know, they do. Presumably that's an acorn in the bottom left.

As far as education goes, computers have always appeared to have been slightly disadvantaged. Creating something that is of any educational value and at the same time fun seems to be more than a little difficult. The thing is, bright colours and cute things do not an educational package make. We're glad to say, *however, that it seems Alternative have* got the right idea from the start.



When I was a child, I'd have been tickled pink with this sort of interaction.

As soon as you open the package, you'll be impressed. As well as the standard tape and manual stuff, there're two sets of nice shiny flash cards. The first showing the numbers up to 20 (complete with illustrations) and the second being everyday objects (trees, beds, etc). These, though not covered in great depth (or at all) by the manual, are obviously to be used in conjunction with the various activities to increase the child's benefit. A word of warning though, these cards are not at all chewable (our new dribbling acting ed ran extensive tests). *(He's right, I did. – Act Ed)*



Anyway... When you do get around to loading the main package, you'll be pleasantly surprised. I'm not going to harp on about some previous releases from Alternative, as everybody releases the odd dud piece of software, and *Playdays* seems to set the record straight.

The experience starts with a dinky Playdays bus bouncing along, and credits zapping up on a lollipop. This is only a credit sequence though, and the tape has to be started again to load up the main bits.

It must be stated at this point, however, that 6128 owners (and all those with an external tape deck) will have immense hassle. The program stops and starts the tape willy-nilly, not really giving a thought to all those who have to sit patiently by their computer, fingers on buttons, stopping and starting the tape. Life's not all bad though – the computer does give prompts for stopping and starting.

Once the main program has loaded, Why Bird

Learning Difficulties



One group of people in particular who have always been left out by fiddly education packages are those with specific learning difficulties. This package does seem bouncy and friendly enough to use for all those with moderate difficulties, and with heavy parental narration it could be suitable for some SLD (Specific Learning Difficulty) children as well. Though be warned: it's a lot more complex than the usual simple action/reward activities. The cards will, incidentally, be perfect for use with Pethna boards, as they're both durable, and large enough for the most uncoordinated of hands to hit. (Pethna boards are large boards or trays with small compartments to hold cards with words, pictures or symbols on them which children who have difficulty speaking can touch to help them communicate.)





The Why Bird is a little odd to look at, but it's a good, strong, and recognisable image.



It's all rather nicely done, in fact, although Why Bird does get a little bossy.

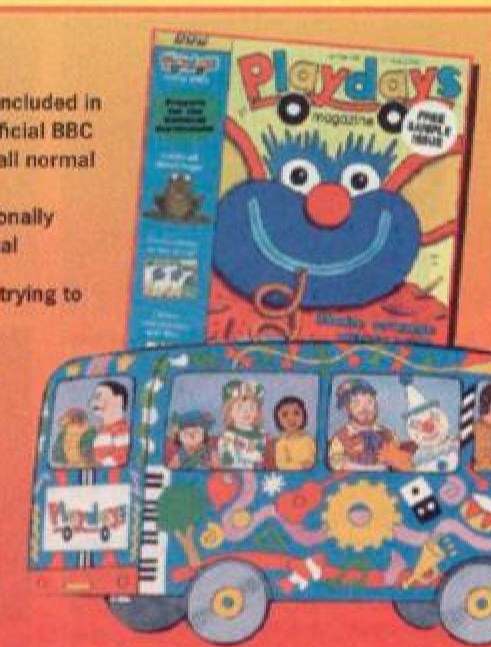
(a character from the TV series) asks you to stop the tape, while a little boat chugs along in the background. The boat sinks (to a complete lack of reaction on the part of the bird), and little Johnny (or whatever your child is called) is asked his name, and greeted. Text input (like all input) is via joystick. The level is then selected, and off we go again, on another tape stopping, starting, and 'oh dear I didn't stop it in time and now it can't find the bit I want it to load' jaunt.

Free!

And, as a special extra incentive, also included in the box is a free sample issue of the official BBC Playdays magazine. It can be found in all normal newsagents, and is stuffed full of fun activities, puzzles, stories, and educationally valuable material, as well as all the usual Playdays characters.

At last someone seems to be trying to *make educational programs* (and, indeed, educational programmes) fun. This is real 'big time' promotional stuff for software with what everyone usually thinks of as limited appeal (although, if you're a parent or teacher, you'll aleays have thought of it as being jolly important).

Hurrah for everyone, we say, it's about time. If only they'd had stuff like this when I was a kid – I could probably have made something of myself...



Letters with a gladsome mind...

Next up is the selection of the letters that the games are to be based around. As a review example, we've selected level four, and the letter A. Why Bird then presents little Johnny with a list of things beginning with the letter A. Then come the animals. The pictures are fun, the letters huge. And we have a game of snap. The program swaps the pictures and words, and Johnny presses fire when he sees a match. If he's right, he gets a nice tune, and a visual reward (a caterpillar or such like). As with most games in *Playdays*, the difficulty level seems about right, and each activity gets progressively harder as Johnny goes through. For instance, the snap game starts with one card changing, and progresses to a level where all sorts of things change, requiring an alert child, though not necessarily a fast reaction.

Then, after Peggy has said "Well Done", we play counting, and the various objects in various quantities are counted. If young Johnny gets the number wrong, Why Bird helps him count, until he gets it right.

After Wobble (the clown) has congratulated Johnny, we play moving window. This involves a picture, and a window moving over it, so only part of the picture can be seen at any one time. After a while, Johnny is asked what the object was, and he must spell the name of the object for Why Bird. If Johnny is no-where near, he is asked to try again. If he spells the word wrongly, Why Bird tells him he is close, and encourages him to have a second go.

Some more encouragement and visual rewards come and go, and we're onto another game. This whole magazine could be filled with the huge number of fun, challenging, and beautifully thought-out games that *Playdays* contains, but, space being the overriding factor, we'll have to leave it there.

So, what's the package like as a whole? The answer is simple. It's brilliant. The software seems to have been pitched perfectly, with the age ranges well accounted for in the ease and concept of the activities. If your child is bored, or you just feel like giving little Johnny a helping hand in his development (social and psychological), Alternative's *Playdays* seems like a perfect opportunity. The graphics are nice and bouncy, the tone of the text simple, and the activities uncomplicated. AA recommends *Playdays* as a must for all children, and the perfect answer to the need for extra-curricular activities for younger children. ●



Wouldn't it have been better to use something more commonplace than anchors?

Endorsement

Surprisingly enough, Playdays is actually a licence! It's officially endorsed by the BBC, and was officially launched at Eureka! (the only children's museum in the UK) by the characters of Playdays 'n'all! With a little luck, this should be the start of a whole stream of endorsed software to be coming from Alternative.



This can't help but do the game a lot of good.

VERDICT

GRAPHICS Nicely bouncy and cheerful – Perfect for children	93%
SONICS The spot effects, jingles and tunes are work beautifully as rewards	90%
GRAB FACTOR From the moment Johnny starts playing, he'll have plenty to do, and plenty to see.	90%
STAYING POWER And hours later, he'll still have plenty to do, and plenty to see.	95%

An outstanding package, beautifully presented, showing incredible care and attention on the part of Alternative.

RATING 94%

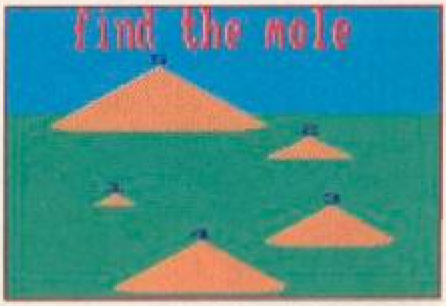
Fun School 2

The Hit Squad ■ 061 832 6633 ■ £3.99 each

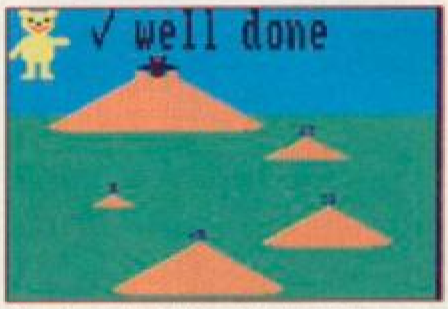
Tim Norris never had any fun at school, so he thought these might be games worth taking a look at.

I have to confess to having been a little jealous of Simon when I saw *Playdays* arrive. I spent many a happy hour, while I was at college, watching Playdays on TV instead of working. *Fun School*'s Teddy could never compete with the Why Bird, I thought.

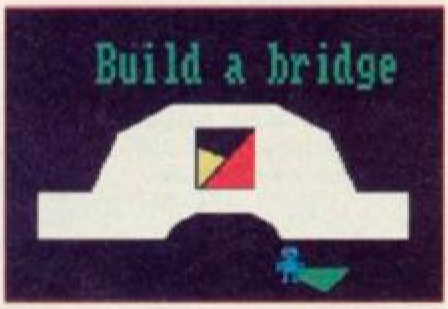
But it can. *Fun School 2* is actually three separate tapes, for three age groups. Tape one is for the under sixes – simple counting games and shape recognition. Tape two is for six to eight year-olds and deals with more complex arithmetic, co-ordination games and spelling.



Now where can that little mole be? Is he in hill 2? No, bigger. Hill 4? No, bigger.



Hurrah, he's in hill 5 and Teddy's jolly pleased with us all for guessing.



Oh no! I hate these stupid shape fitting puzzles. It's lucky this one's not too hard.

Tape three is for the over eights (which presumably includes me) with anagrams, logic puzzles and more complicated shape problems. So let's get down to specifics.



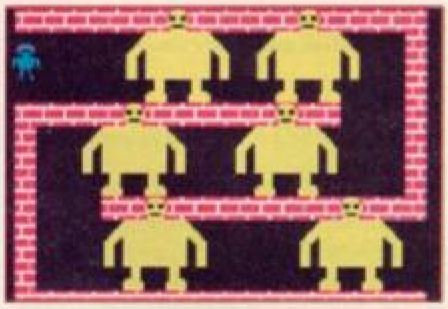
Under-6s

Shape Snap Two shapes appear and the child has to decide whether they match. If they're wrong, Teddy is sad. If they're right, Teddy is happy. If they're right when the shapes match, Teddy is so happy that he waves his little arms. I don't know how much this would appeal to an under-6 but I was so chuffed that the others wondered what was wrong with me.

Find the Mole Guess which in which of the five different sized hills the mole is hiding. If you're wrong you're told whether his hill is bigger or smaller. When you find him he pops out. Teddy smiles and waves. Hurrah.

Teddy Count How many teddies are there? You've probably got the hang of the thing with Teddy by now. I still thought it was great to get a smile and a wave from the little chap.

Write a Letter At first I couldn't work this one out. I was supposed to be able to move Teddy around the screen to draw letters. I couldn't manage it and then the program crashed. On the second go I was able to draw some stuff and it



Passage of Guardians. I thought it was going to be about broad sheet newspapers.

was quite fun. No reward from Teddy, though.

Colour Train Huge amounts of fun as you tell a train to stop at the station. If you pick the station that's the same colour as the train, the passengers get on and off.

Pick a Letter A more complex snap-type game where the child finds matching letters and moves them about the screen. It might be a little complex for some under-6s.

Spell a Word Using the usual keyboard keys (as opposed to an icon-driven system), the child must spell the name of the object the computer draws. They're three-letter words like car and bag, with the four-letter 'door' thrown in.

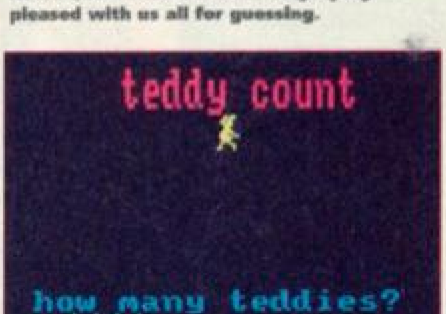
Teddy Bear Picnic Guide good old Teddy from the top of the screen to the picnic at the bottom with the arrow keys.



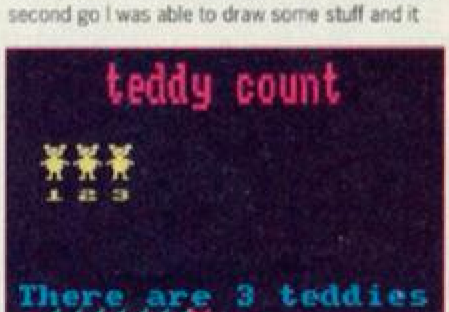
6-8 year-olds

Number Train This one follows on from Colour Train in the Under 6 package. Stop the train at the right station and then work out how many people are on the train once all the getting-off and getting-on has been sorted out. Teddy has been replaced by Frog but the smile and the jolly wave are still there. It's wearing a little thin as a reward by now, though.

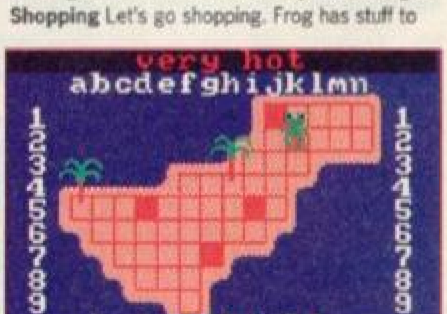
Shopping Let's go shopping. Frog has stuff to



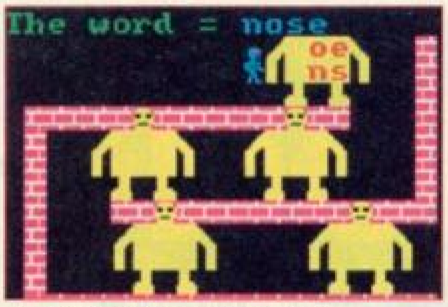
These teddies move about a bit, so you've got to have your wits about you.



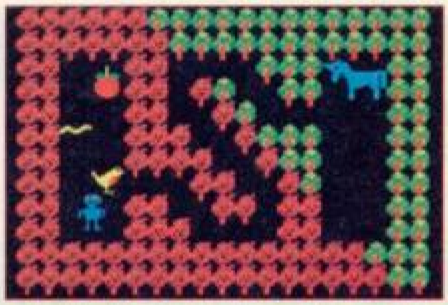
And if you get it wrong, the machine puts you right without being nasty.



Criminy! Where can the treasure be? It's obviously nearby, we're very hot.



If only we could get past this great lumbering oaf, everything would be okay.



We still haven't worked out that we need to take the worm first. Honestly!



And by the time you're over 8, you get a little robot. The arm-waving's the same.

buy and you have to take him to the right shop. It's a basic reading-type game that requires knowledge of the fact that you have to go to a pet shop to get pet food. We get ours from the supermarket.

Maths Maze Quite good fun, this. You have to guide Frog about the place but occasionally you'll be asked arithmetic questions by robots. If you're right, you can carry on.

Treasure Hunt A rows and columns thing like Battleships. The computer tells you whether you're warm, etc. The map's quite nice and we all enjoyed playing this one.

Bounce A co-ordination game where you bounce a ball so that it hits an apple. It's painfully easy at first but, in the end, I found it quite tough, to be honest.

Packing Oh no! One of those shape things where you have to fill a rectangle with different shaped pieces. I hate these. Good fun for those that aren't spacially challenged, though.

Caterpillar A word game. Caterpillar can only eat if you guess the hidden words correctly.

Number Jump A times-tables game where Frog can only jump to pads whose numbers are multiples of the key number. Easy if you know your times tables, quite a useful way of reinforcing them if you don't.



Over-8s

Cor blimey, this is starting to get tough.

Build a Bridge Another of those horrid shape games. Build a bridge with geometric shapes, and on the later levels, you may even need to rotate them. I'm better with words and numbers, frankly.

Passage of Guardians An anagram game where you progress through a maze by solving the guardians' anagrams. I was better at this.

Unicorn Remember that old puzzle about the fox, the chicken, the grain and the boat and you can only put one of them in the boat at once but you mustn't ever leave two of them together if one will eat the other? Sure you do. This is the same, only with a bird, a worm and an apple. Good fun but you only need to solve it once.

Logic Doors Move about a maze, opening doors with colour-coded keys. This was quite a challenge, actually, and I still can't work it out, even with the answer in front of me.

Souvenirs Foreign countries, souvenir shopping lists, exchange rates, limited funds. Flippin' 'eck, this is a bit too much like the real world.

Code Boxes Ah, this is more like it. Open the box by typing the correct number – the number's written on the box in code. I could do this.

Mystery Machine Another code game. I have to confess I got a bit bored with this. You have to make a machine work, but by solving more codes. Mmmm.

Escape You have to have completed all the other games so I couldn't do this one (I'd got bored with Mystery Machine and didn't finish it), but it's a maze thing with keys. Then suddenly we found the little card with all the answers on that's included for parents and teachers, but it was too late – I'd already started writing.

The general verdict, then, is that the Under-6 and the 6-8 packages are very useful. They look okay (they sound horrible) and, if you play them with your child, you'll both have a lot of fun. The Over-8 package is altogether a horse of a different kettle of fish, to be sure. By the time a child reaches that age, they're more likely to want to play a *Dizzy* game or go over to their mate's house to have a go at *Street Fighter II*.

The games are good, and very well-thought-out, but not much 'fun' and not really the sort of thing your child is likely to pick up on their own. It may have some use in schools, though, where teacher supervision is more readily accepted.

I spoke to a teacher recently who said that they're bravely soldiering on with their CPC but that most of her class have got Mega Drives and SNESs and they seem a bit disappointed with the 8-bit educational stuff. And even though it's quite useful and they actually enjoy the games themselves, they make a big show of the fact that their console games are better than this, Miss.

Still, at the price, the two under-8 packages are well worth it. It's not as flashy as the *Playdays* pack, but there's tons in there and most of it's good fun. ●



Caterpillar. Guess the word or the larva starves. Haha. We got it wrong on purpose.

VERDICT

GRAPHICS 80%
Mostly fairly limited, but they do the job and Teddy and Frog are good fun for the young 'uns.

SONICS 73%
Bleeps, crunches and an irritating tune. *Not too hot.*

GRAB FACTOR 85%
Impossible to judge how a child will react, but I quite liked it.

STAYING POWER 89%
As above, it's impossible to judge, but it should last some time.

A cracking set of games that will definitely entertain younger children. Little there for older ones, though.

RATING 89%



It seems we've found it by the way Frog's waving his little amphibian arms.



Bounce. Not too tricky at this stage, but when there are obstacles it gets quite tough.

Cheat Mode

How are you getting on then? Stuck? You need Phil Howard's tips and cheats. Write to Cheatmode, Amstrad Action, 30 Monmouth Street, Bath, BA1 2BW.

Captain Blood

Remember a game called *Captain Blood*? It was one of those French games where you could never quite work out what was supposed to be going on (at least none of us could). Anyway **James Clark of Cramlington** seems to know a bit about it and he has sent in the solution. Frankly, we're still none the wiser.

Get the Pink Buggol at the beginning (or find one) and say to it CODE INFORMATION HELP. It will say something. At this point you can put in the names of most of the aliens, but what you want to say is NUMBER. It will then give you the co-ordinates for 4 numbers. Jot these down and also the co-ordinates of the planet you're on.

Go to the first number and when it's told you its idea say YES. It'll say some more things followed by some co-ordinates, jot these down. Don't teleport him, blow his planet up instead. Just go to the first co-ordinate which number one gave you and blow the planet up. You can talk to the creature on this planet but it's a waste of time. Go through the four co-ordinates number one gave you and blow them up (you can talk to them). After that go and blow up the other three planets on the co-ordinates of the first four you got. *(I hope you're following all this. – Act Ed)*

Now go back to the Buggol and say CODE INFORMATION HELP. After he's said his bit you say TORKA. Jot down the co-ordinates again and go to each one where a woman will appear and say something. One will show the teleport sign. Teleport her and you've completed the game.



City Slicker

Colin Attle of Esh Winning has supplied a list of objects and how to use them in that super-duper covertape game *City Slicker*.

The Tower

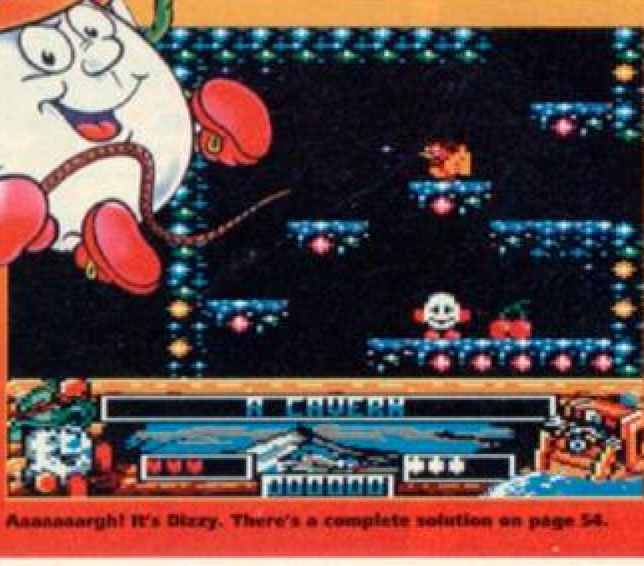
Beefone – To remove the guard near the Pail.
Toggle (dungeon) – Switches small bit and door on and off.
Left Flame – To open stores door.
Right Flame – To stop fast guard.
Weight – To open left trap and lid in tomb.
Edd Butt – To collect Phone.
Vase – No use.
Crate/ Fragile – No use.
Toggle – Stop starts platform.
Sceptre – No use.
Crown – No use.
Trap – Use weight to lower.
Sucker – No use.
Magnet – No use.
Scrumpy – Makes top guard in stores disappear.
Pail – Use with wrench on stopcock to make bucket.
Phone – No use.

Westminster

Wrench – Use with pail on stopcock to make bucket.
Wrench – use in start to get small bit.
Name plate – B.D.U. part.
Trash – No use.
Phone Card – Transport between Museum and rear.
Drop – No use.
Secret door – Entrance to pipes.
Back door key – opens (not surprisingly) the back door.
Valve – Use with spanner to produce wheel 2
Stopcock – Use with pail on wrench to make bucket.
Key – Ensures wheel 1 is near jumping spider.
Bucket – B.D.U. Part.
Wheel 1 – B.D.U. Part.
Wheel 2 – B.D.U. Part.
Booze – No use

Museum/ Museum Rear

Trap – Opens entrance.
Old cross – No use.
Skull – No use.
Flame (in crypt) – makes an engine appear.
Engine – B.D.U. Part.
Trap – Opens and closes the way to the flame.
Shield 1/2 – makes the door to the tomb appear.



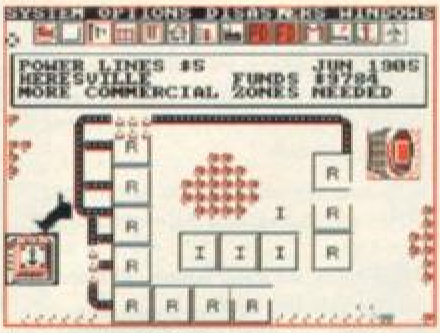
Aaaaaaargh! It's Dizzy. There's a complete solution on page 54.

Crystal Kingdom Dizzy

Just to let us know he's still ALIVE & KICKING (that's a plug for his Fanzine by the way – nothing too subtle here, we don't believe in it) the man from Kelstedge, Lee Rouane, has come up with a great keypress that for the latest Dizzy incarnation, *Crystal Kingdom Dizzy*.
Press the keys TURBO on the title screen for infinite lives.

Also on the second screen you'll need to give the Game Genie™ passwords to get you to different levels they are:
Level two: WALL
Level three: BOOK
Level four: DOZY

Thanks for that, Lee, and if you want the complete solution, then look no further than page 54...



Never start playing Sim City in the office just before 6 o'clock – you'll never get home.

Palace west

Royal box – No use.
Disguise – To get into tomb.
Exit – Entrance to tomb.
Lid – Use weight.
Spanner – Use with valve to produce wheel 2.
Ladder – Add height.
Shield – Use on shield 1/2 to make tomb appear
Shield – Pick up to make sceptre appear.
Sceptre – Pick up to make weights appear.
Weights – To make lid and trap lower.

Trafalgar Square

Dustbin – No use.
Jib – B.D.U. Part.
Turret – B.D.U. Part.

Pall Mall

Bowl – To stop Drip in den.

Suburbia

Pidgy nosh – No use.
Back door – To den.

Thanks to **David Baker of Heywood** for tips for *Nemesis* and *Continental Circus*

Burnin' Rubber

Kevin Hadley of Brixham has a tip for *Burnin' Rubber*, the cartridge game that comes with the GX4000 and Plus machines.

When qualifying stay directly behind a car and you should find your speed increases into the 190mph slot rather than your previous top speed of 180mph. You should be able to 'jump' from car to car as you travel.

If you repeat this while travelling downhill speeds of up to 200mph can be reached. While moving at these high speeds on cornering take your finger off the accelerator and let the car glide around. If you are still travelling too fast, then brake at the last possible moment.

Bob Winner

Andrew Kennedy of Branxton (in Australia, no less) has come up with a cheat for an old game, *Bob Winner*.

If you continuously press ESC for a new game the Kick Boxing shoes will appear in front of you. You'll then get the gloves and gun in order as you need them without back tracking. If the gloves don't appear near the kickboxers, try again – it works 99% of the time.

Thanks for your cheat Andy.

Sim City

The only cheat I have for *Sim City* is a multiface poke sent in by **Ben Watkins of Hinckley** which gives you lots of cash:

3B9B – FF
3B9C – 7F
3C74 – FF

Turbo The Tortoise

James McWilliams of Ballymena has completed *Turbo the Tortoise* (without a cheat – Andy Price take note!) and compiled a super set of tips for the less fortunate amongst us. Thanks.



Where does it say anything about a tortoise playing the bagpipes?

Prehistoric zone

Bodyless heads – 1 hit
Tortoises – 2 hits
You can't kill fish or birds.

When there's a power-up you can't reach there will always be an invisible platform.

After the second lava pool in the entrance is a bonus stage. After the third lava pool at the rope bridge there is an invisible lift.

Guardian – Duck down below the second platform. When the guardian has fired his two shots diagonally then jump up and shoot him in the head. Repeat until dead. (four times).

Ice age zone

Little man with goggles – 1 hit
Snowmen in fur coats – 2 hits
You can't kill the wasps.
There's a bonus stage past the water beside a tree and there's an invisible lift where the power-up is.

To kill the baddie that hops from one platform to another, wait directly below the lift until he's on the left platform. Then jump onto the lift, and quickly onto the right platform, turn and shoot him.

Guardian – Wait until he's on his way down, then move quickly out of the way, jump up and shoot him in the top of his head. (six times).

Egyptian zone

White heads – 1 hit
Red Heads – 2 Hits

To get past the shooting sphinx (You can't kill the Sphinx) time your run/ jump between his shots.

The bonus stage is where you see a red head pacing back and forth at the top of some steps.

Guardian – Wait until you see him coming up through the platform. Jump up and hit him on the head, then land clear of him. (8 times)

Medieval zone

Witches – 1 hit
Floating ghosts – 2 hits
Brown mice – 1 hit
Skulls – 1 hit
Use bottled potions to fly
Jump across high platforms to get an extra life.
Guardian – You can't avoid being hit the first

Nemesis



Collect in this order Missiles, Laser, Option, Shield, Speedup, Speedup, Laser. If player one kills the end of level guardian he'll go to level two but if player two kills it he'll go to level three. When you restart he'll be on level three.

Continental Circus



At the start of the race, push the controller forwards when the first light appears, pull it back on the second light and forward again on the third. You'll start the game driving at 150mph. ***(Sounds jolly dangerous to me. Don't try this at home, kids. – Act Ed)***

time. Stand beside him them jump directly up and shoot him in the head. The guardian copies you, but will always miss as long as you continue to jump and shoot. You'll need plenty of ammo (you'll need to hit it 12 times).

20th century zone

Film reels – 1 hit
Skateboards – 2 hits
Enemy walking about – 2 hits
You can't kill the birds or the dog
The bonus stage is in the doorway with the cracked floor. Stay high up on this level to avoid everything, but watch out for the birds.
Jump the fountain.
Guardian – Jump back and forth across the 2 bottom platforms and hit him on the the head when he appears. (6 times)

Futuristic zone

Robots – 2 hits

A difficult level with moving walkways to get past them duck down and walk when the block is on its way back up again. time movements.
Guardian – stand at top left and wait for him to jump up at you, jump on his head and wait until he fires then go to bottom right, then straight up to top right. Jump on the waiting guardian, across to the left and back to the start position. Repeat the process until he is dead (18 times) and you have won.

If you have any solutions, hints, tips, cheats, POKEs and anything else that might be useful, sent it to:
Cheatmode, Amstrad Action, 30 Monmouth Street, Bath BA1 2BW.
Who knows, you might win a fabulous cash prize (golly!).●

Crystal Kingdom Dizzy



Once again a hot flush of solutions to the new dizzy game *Crystal Kingdom Dizzy* have arrived at Cheat Mode – Terry Oldham of Claughton, Anthony Hodges of Sittingbourne, N Peacock of Middlesborough, Alan Hill of Sleights, Neil McCullocugh of Galgorm in Ireland. So as is always the case in these matters the luck winner is **Neil MCullough of Galgorm**. Thanks to everybody though.

Level one

- Go left and pick up the weight.
- Take the weight to Daisy's house and set it on the button.
- Enter Daisy's house through the window and collect the whip.
- Go right to the garden and collect the other weight.
- Go to Denzil's house and put the weight on the button.
- Go left on the clouds to above the waterfall, then go left and collect the screwdriver.
- Go back to Denzil's house and give him the screwdriver. Collect the spanner and go to the garden.
- Start the generator using the spanner and go to Dora's house.
- Talk to Dora and take the cake to CJ the Elephant.
- Take CJ's umbrella to the waterfall, go through it and collect the diamond.
- Go to the wishing well and drop the diamond.
- Go to the screen called 'Tree tops' and use the whip.
- Jump on the whip and go to Dylan's house.
- Talk to Dylan and take the newspaper to Grand Dizzy.

Level two (Code = BOOK)

- Go right to Fat Freddy's surfshack and collect the fish food.
- Drop the fish food on the edge of the pier and go across to the ship on the dolphin.
- Talk to the captain and go right to the mast bottom.
- Climb to the very of the mast and collect the Blu-tack.
- Go to the small sail and collect the steering wheel, then go right and collect the saw.
- Go back to the helm and stick the steering wheel to the ship with the blu-tak
- Go below decks, collect the scissors and drop the saw.
- Collect the patch from the galley and the needle and thread from the captains quarters.
- Go to the main mast and climb to the main sail.
- Drop the scissors, then cover the hole with the patch and the needle and thread.
- Collect the plank of wood from the galley and the sticky tape from the small sail.
- Go to the hull and drop the piece of wood beside the leak.
- Go back to Dozy and talk to him. Take the flag to the top of the main mast and drop it.
- Talk to the captain, take the badge to Freddy, and then take the map back to the captain.
- Go to the top of the main mast and use the telescope.

Level three (Code = WALL)

- Collect the torch and go through the trees to collect the flippers.
- Collect the oxygen tank and go under the water avoiding the fish.
- When you're out of the water, drop the oxygen tank, collect the pick and go back to the water.
- Drop the torch and collect the oxygen tank.
- Go to the oil pipes and drop the pick.
- Go back under water. When you're out of the water again, drop the oxygen tank again (to make room). Collect the torch.
- Collect the oil can and return to the water, drop the torch and collect the oxygen tank.
- Return to the oil pipes and fill the oil can with oil.
- Go to the lift and use the oil on it. Press the button.
- Collect the pick and return to the underwater caverns. Now drop the oxygen tank and collect the torch.
- Go to the bottom of the lift shaft and use the pick on the different coloured rocks.
- Talk to the old man and enter the secret room.
- Transport all the treasure to the lift and press the button.
- Return to the water, collecting the pin on the way.
- Drop the oxygen tank, collect the torch and return to the surface.
- Go to the lift, talk to the old man and drop the flippers.
- Take the sword, the puncture kit and the oxygen tank to the dingy on the quayside
- Use the oxygen tank to blow up the dingy, with the puncture kit over the puncture.
- Put the treasure in the dinghy and burst it with the pin.

Level four (Code = DOZY)

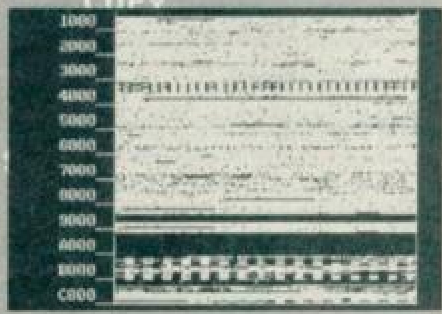
- Make your way through the maze until you come to the crystal.
- Return to the starting point and give the crystal to the man.
- Collect the treasure and go to the catapult. Load the treasure into the catapult and press fire.
- Go right collect the salt and go up as far as possible.
- Collect the ice block and go back down to the pit (where the chalice is).
- Drop the ice block into the pit.
- Collect the chalice and go up to the altar. Drop the chalice.
- Go right to the cavern where the crown is.
- Use the salt on the ice over the crown. Take the crown to the altar.
- Go down to 'The hills' and collect the parachute.
- Go to the screen called 'Big jump' and parachute to to the cloud where the sword is sitting.
- Take the sword to the altar.
- Place the chalice to the left, the crown in the middle and the sword to the right.
- Talk to the man.
- That's it.



WIN a HackIt

Turn to pages 24 and 25 of this issue. Read the review. Think idly 'Ooh, I'd really like one of them'. Well, if you're really lucky, you can win one in the amazing Amstrad Action and Siren Software competition!

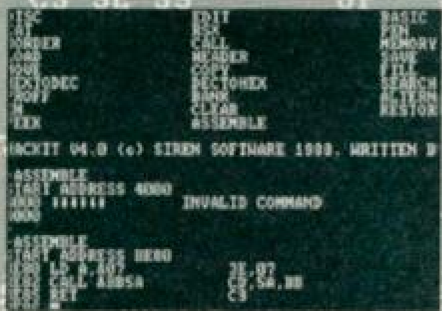
Yes indeed, Siren have given us a HackIt to give away, and you could win it. All your programming troubles will be over. (We really paint a rosy picture, don't we Si? I mean, come on, you've been raving on about this thing for weeks. The review model seems to have mysteriously found its way to your house and all you can manage is a feeble 'And you could win it'. Enthuse a bit. – Act Ed) It's really great. (I give up. – Act Ed)





To win the HackIt box, simply answer these simple questions:

1 What's the internal processor of the CPC commonly called?
2 What was the exact date of AA issue one?
3 In Greek mythology, who or what were the sirens?





All entries to:
'I Want A HackIt And I Don't Care Who Knows It'
Amstrad Action
30 Monmouth Street
Bath BA1 2BW



Rules:

- The winner must jump up and down in glee.
- The losers mustn't.
- The Acting Editor's decision is final.
- No employees, or relatives of employees (sorry, mum) of Future Publishing or Siren Software can enter.
- The closing date is 30 April 1993.

Balrog

Hot news from the world of Adventure

Balrog once again dips into the bulging Balg bag and provides the answers to all your problems in the most excellent adventure column in Amstradom!

Balrog adventure entries

You may all be wondering where the results from the Balrog *GAC* competition are. The Balg apologises for the delay but is pleased to say that the delay was caused by such a healthy response to the competition.

Loads of you seemed to have turned *GAC* experts and the Balg is finding it hard to choose between such a wealth of quality games. However I'll try to rectify this soon.

Balrog's postbag

Author! Author!

Dear Balrog,

Now that the major companies have all pulled out of Amstrad adventuring, we all know how hard it is to find particular titles. I myself would love to get hold of any Magnetic Scrolls or Infocom games, particularly classics such as *Hitchhikers Guide to the Galaxy* and *Jinxter*. The only Magnetic Scrolls game I have is *Corruption* (my favourite adventure game to date), and I have heard so much about Infocom games. But getting them seems to be next to impossible.

If the companies have really pulled out of Amstrad adventuring, then there is no chance that they will make any more money out of us. Therefore, why don't they drop the copyright on their games just for the Amstrad format? This means that anyone who had a one of the titles could donate them to the PD library, thus making it available for everyone.

Is this possible? If so, could the Balrog arrange it? Please?

Steve Haddon
West Lothian

Steve, it would be brilliant to get some of the old,

Lords & Ladies of Adventure



Aftershock ● Colossal Adventure ● Escape from Khosima ● Gnome Ranger ● Gremlins ● Guild of Thieves ● Haunted House, ● Hitchhikers Guide ● Ingrid's Back ● Kingdom of Hamil ● Leather Goddesses, ● Mindshadow ● Mordon's Quest, ● Pawn ● Price of Magick ● Return to Eden ● Rigel's Revenge, ● Scapeghost ● Seabase Delta ● Snowball ● Sorceror ● Village of Lost Souls.
Robin Harley
3 Shropshire Place, Eastgate, Peterborough, Cambs PE1 5BX.

Castle Blackstar ● Heavy on the Magick ● Mystery of the Indus Valley.
Andy Clayton
29 Portman Road, Scunthorpe, South Humberside DN15 8PD. Tel: (0724) 872135 between 6pm and midnight.



Aftershock ● Big Sleaze ● Colour of Magic ● DAA ● Dracula ● Escape from Khoshima ● Espionage Island ● Fourth Protocol (Pt. 3) ● Frankenstein ● Hunchback 1 ● Imagination ● Mega Bucks ● Message from Andromeda ● Mordens Quest ● Mountains of Ket (Pt. 1) ● Return to Eden ● Seabase Delta ● Shard of Inovar ● Souls of Darkon ● Star Wreck ● Stormbringer ● Subsunk ● Top Secret ● Warlord ● Werewolf Simulator ● Wizbiz ● Wolfman.
Dawn Greastrix
10 Chatsworth Drive, Chadsmoor, Cannock, Staffs WS11 2EW.

Help with GAC Programming.
Len Townsend
61 Lowergate Road, Accrington, Lancashire BBS 6LN.

Crispin Crunchy ● Gnome Ranger ● Message from Andromeda ● Scapeghost ● Simply Magic ● Talisman of Power ● Top Secret ● Yarkon Blues.
Jay Honosutomo
41 Thriftfield, Hemel Hempstead, Herts HP2 5YH. Tel between Mon-Fri, 4.30-9pm (0442) 242957

Adult II ● Bordedom ● Cricket Crazy ● Deadenders ● Dungeon ● Firestone, Football Frenzy ● Gnome Ranger ● Hitchhikers Guide ● Ingrid's Back ● Jason & the Argonauts ● Lancelot ● Leather Goddesses of Phobos ● Lords of Time ● Mystery of Indus Valley ● Quest for the Golden Egg-cup ● Price of Magik ● Red Moon ● Rigel's Revenge ● Scapeghost ● Smashed ● Tizpan ● Venom.
Richard Jamieson
79 Land Street, Rothes, Aberlour, Banffshire AB38 7BB.

Aftershock ● Football Frenzy ● Gnome Ranger ● Kentilla ● Knight Tyme ● Mega Bucks ● Rigel's Revenge ● Seabase Delta.
Jon Bingham
10 Cowslip Walk, Amblecote, Brierley Hill, West Midlands DY5 2QN.

Bestiary ● Blue Raider ● Firestone ● Quad X ● Wizards Castle.
Lee Davies
The Flat, 415 Whitehall Road, Bristol BS5 7BP.

Fantasia Diamond ● Fish ● Future Wars ● Guild of Thieves.

Bilbo Baggins
67 Philip Avenue, Nuthall, Nottingham NG16 1EB.

Grange Hill ● Great Escape ● Knightmare.
Thomas Storey
27 Queens Drive, Whitley Bay, Tyne & Wear NE26 2JU.

Star Wreck.
Steven Kenny
Tel (0942) 213195

Star Wreck.
James Morley
27 Rowlestone Rise, Greengates, Bradford, West Yorkshire BD10 ODS. Tel: (0274) 616674

Hollywood Hijinx ● Scapeghost.
Gwynn Hopkins
Albion House, Llandre, Nr. Aberystwyth, Dyfed SY24 5BS.

now unavailable, adventures re-released on the Amstrad. Unfortunately the major problem is not persuading the authors to release the games, but finding those authors! Most games were written years ago and the authors have moved elsewhere and are very difficult to trace. Even if you can find the author to an old commercial game it is often impossible to discover who owns the rights – especially in the case of companies such as Infocom who were bought by Activision, who have now gone bust. However if any authors, or anyone who knows any authors, read this then please re-release the games on the CPC – it would be brilliant to have some of the older games available again. The Balg is always on the look out for authors and old games but as yet my search has been mostly fruitless.

Adventure questions

Dear Balrog

Two questions: What are the other games in *The Red Moon Trilogy*? Which of the following games would you recommend: *The Red Moon Trilogy, Kentilla, Jewels of Babylon* and *Fantasia Diamond*?

Robert Kershaw
Shropshire

The Price of Magick was the follow-up to the adventure Red Moon, while the game Lords of Time was sold as part of the trilogy although it actually wasn't! The trilogy is well worth playing if you can get it. The Red Moon Trilogy (known as Time & Magick) is probably the best for value for money as you get three good games in one package. Fantasia Diamond, although quite old now, is a very well-written game with one of the first examples of non-player characters who follow the player and run around by themselves (watch out for the pixies!) Kentilla and Jewels of Babylon are all right but I would recommend the other two as the better buy.

More chaos?

Dear Balrog,

I have recently completed *Lords of Chaos* – is the expansion pack still available and, if so, where from? Do you know of any similar games?

N Jackson, 1 Edmonton House, Alberta Close, Dover, Kent CT16 2RT

Sorry, but Bladesoft isn't around any more but if any readers can help I'm sure they will write. Laser Squad is by the same author and is well worth a look if you can find it – it has recently appeared on budget so you should have no problem getting hold of it. PC owners may be interested in hearing that Julian Gollop, author of Lords of Chaos and Laser Squad, is writing a new game called UFO but unfortunately it will not be available on the good old CPC.

Quill query

Dear Balrog,

Is Quill better than GAC? Can Quill games have graphics?

James Coupe

Errr... Well, yes, the Balg does actually prefer the Quill to GAC although I feel that PAW and ADLAN are both vastly superior to both GAC and Quill. Quill games can have graphics (as shown in Terrormolinos) but a separate package is needed called The Illustrator. I'd stick with GAC as it's easier to use and you should have it already after it appeared on the covertape!

Balrog's Cluepot

Yet another bumper bunch of clues from adventures near and far including Thomas Christie (Grangemouth), Glen and John McFarlane (Troon), Cath Duerden (Leeds), Claire Smith (Stretford) and Richard Smith (Bath).

The Black Fountain

- To get past the guard at the town hall have your documents of identity with you.

Football Frenzy

- There are some useful things in your desk and your car.

Grue-Knapped

- The maze and the swiss roll have unseen similarities.
- Bend the pin to make a fishing hook.
- Plant the crisps to grow a bacon tree.
- Crickets and bats are great friends.
- Look behind the cupboard.

Rigel's Revenge

- In the house with the pile of uniforms, pick up the Rigellian uniform, or you will be shot by the rebels as a traitor.

Sharpe's Deeds

- Don't buy the guide book, as it's useless. Just examine it.

Smirking Horror

- There is a flute in the music building.
- If you haven't got a flashlight then go into the music building, get the flute and leave immediately to avoid getting eaten by Cthulhu.
- Wait outside to freeze the water.
- Log on as Lovecraft at the computer.
- Wedge bar to open elevator.
- Imitate the pied piper in the tunnel.
- Don't attack Moon.

The Trial of Arnold Blackwood

- Make sure that you have the sledge hammer with you before you enter the hall of mirrors.
- If you are having a problem with the rats then play the flute.

Help

Help!

Stuck in an adventure? Or desperately trying to find one – the helpline it the place for you! Just send a postcard to Balrog's Helpline at the usual Balrog address.

- Wanted: Help in *Bard's Tale* and *Snow Queen*.
Michael Craig, 28 Golfhill Drive, Bonihill, Alexandria G83 9ER
- Wanted: Help in *Five on Kirren Island*.
Paul Dymott Jr, 38 Eshwood Square, Cannon Park, M'Bro, Cleveland TS1 5LN
- Wanted: Help in *Boggit* – how do I get out the house?
Lee Middleton, 6 Welbeck Avenue, Martham, Great Yarmouth, Norfolk NR29 4TA.
- Wanted: Help in *Star Wreck* – how do I open the safe and what do I do when the elevator is inoperative? Also, where is the squirrel in *TRD*?
Robert Smith, 1 Tyn Y Coed, Benllech Road, Llangefni, Anglesey, Gwynned, North Wales LL77 8YX.
- I need help to defeat Wizard Zak's in *Magicland Dizzy*.
Rix, 27 Alexandra Road, Wisbeach, Cambs PE13 1HS.
- Desperately seeking *Hitchikers Guide* or *Seabase Delta*.
Kim Brooker, (0582) 592584
- How do you get passed Arnold, the singing bush and the squirrel in *Gerbil Riot '67*?
David Staples, 27 Hathaway House, Pitfield Street, London 1 6QE.
- Wanted: Hints, maps or POKEs on *Three Weeks in Paradise, Seabase Delta, Zork II* and *Mordon's Quest*.
Owen Williams, 98 Wickersley Road, Rotherham, South Yorkshire S60 3PP.
- Wanted: Any help in *Slaine* (especially how to avoid getting stranded on the island), *Necris Dome* and *Druids Moon*.
Richard Jamieson, 79 Land Street, Rothes, Aberlour, Banffshire AB38 7BB.
- How do you get the water in *Scary Tales*?
James Coupe, 21 Victoria Road, Sutton Coldfield, West Midlands B72 1SY.
- Wanted: Help in *Leather Goddesses*.
Lesley Ralph, 38 Brow Nelson, Dalston, Carlisle CA5 7LE. ●



Contacting the Balrog

To communicate with the Balg, write to him at: Amstrad Action, 30 Monmouth Street, Bath, BA1 2BW.

In the Pipeline

Books on machine code are notoriously unhelpful. Simon Forrester has finally found one he can recommend.

Ever wanted to learn machine code? Were the tutorials we ran a while back any use to you at all? Well, to make things even easier for you, Robin Gilbert from Pipeline Software has stepped in with a complete guide to machine coding.

The guide comes in 15 parts, reasonably priced at £3 each (that's £45 the lot if you're arithmetically challenged). Each guide has around 20-30 pages, with the last 9 containing complete documentation of all jumpblock entries concerned with that particular topic and loads of nice examples of how to use them. The sections highlighted with a '★' are accompanied by a disc, costing a further £3, though the disc is optional. The sections are made up as follows:

- **An introduction to assembly language**

These first two guides explain exactly what the inside of your CPC looks like from a machine code point of view, what assembly language actually is, and how you'll be using it.

- **Implementing data structures**

This section deals with advanced methods of storing data and information, for use in more serious applications.

EXPERT?

For anyone who thinks they've got this whole coding thing covered, think again. There's more than just the bog standard information here. These guides seem to have more useful stuff than the official firmware guides we've all grown to love, cherish, and use (Amstrad flatly refuse to print them any more, so just give up).

- **Sorting Techniques ★**

Here we see how to sort and order data (stored in the previous instalment) using machine code, and algorithmic theory.

- **BASIC keywords in assembly language**

Funnily enough, this is the first time we've seen this kind of angle on machine code. This section deals with replacing BASIC keywords with machine code routines.

- **Techniques used in writing games ★**

Design, modules, testing, construction, structure, etc.

- **The keyboard manager and the firmware**

This and the following sections deal with the layout, structure, internal routines, and firmware indirections of the CPC. As you can see, there's rather a lot, and they're all well documented.

- **The text VDU and the firmware**
- **The graphics VDU and the firmware**
- **The screen manager and the firmware**
- **The cassette/disc manager and the firmware**
- **The sound manager and the firmware**
- **The kernel entries and the firmware**
- **The machine pack and the firmware**
- **The upper and lower jumpblocks, RSTs and indirections**

As tutorials, they work well. The first sections explain to the total novice exactly how machine code is structured, where it lives in the computer's memory, what techniques are used in writing code, and what software is needed before you start. These tutorials do not, however, explain the fundamentals of your machine, so it'd be wise to have a general understanding of BASIC before you start thinking about these tutorials (or, in fact, machine code at all).

The writing style is clear and concise, with very little left uncovered, and no ambiguity. If something is relevant, it's in there. As well as being clear, the main copy is also informative. Loads of useful information is buried in each section, so even if you've got a good understanding of code, the tutorials are well worth reading.

So how well do they teach you to code? Of all the guides, books, tutorials, etc. released on coding the CPC, these tutorials have got to be by far the best. There's no official wording, complex technical jargon, or any other bumf to turn you cold. It's just plain English all the way.

As any experienced coder will tell you, Z80 machine code is well worth learning. There's nothing quite like sitting back after several weeks of hard toil and seeing some beautifully running program as a reward for your efforts. Machine code is the industry standard as far as CPC software goes, and the tutorials from Pipeline have to be the easiest way to learn this noble art.

To cut a long story short, these books have to be the best machine code guide so far, and are well worthy of the price. You may find you don't need all of them, and it would be wise to buy only the guides you really need at first, and build up your collection later, but it's well worth getting the whole lot at some point or other, as everyone can learn something from them. ●

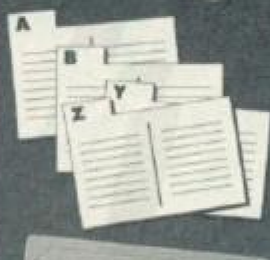
VARIOUS VOLUMES!!!





The sections are as follows:

An introduction to assembly language (2 parts)
Implementing data structures
Sorting Techniques ★
BASIC keywords in assembly language
Techniques used in writing games ★
The keyboard manager and the firmware
The text VDU and the firmware
The graphics VDU and the firmware
The screen manager and the firmware
The cassette/disc manager and the firmware
The sound manager and the firmware
The kernel entries and the firmware
The machine pack and the firmware
The upper and lower jumpblocks, RSTs and indirections









CONTACT:
PIPELINE SOFTWARE 9 Brynglas Terrace, Pyle, Bridgend, Mid Glamorgan, CF33 6AG

VERDICT 95%

Reaction

We've had more letters than you can shake a stick at. Tim Norris and Simon Forrester do their best to sort out all your problems.

Classic Collection

I think that the Classic Collection is a good idea but I feel that Amstrad Action may be abusing their monopoly position by charging £2.95. Although I agree that it is exceptional value, many Amstrad owners are unable to afford a magazine that costs 5p a page. I am very happy with the Classic Collection as I recently took out a subscription so I only pay £2.08 an issue for the magazine.

James Bridges
Reading

With over £30 worth of top notch software on each covertape, I can't help but agree that AA still represents outstanding value for money. So instead of thinking of it as so many pence per page, why not think of it as £2.95 for a cracking good magazine and 30 quid's worth of utilities and games. Of course, we're always aware that price increases are unpopular but your point about subscribing is also well made – you do save money. ***TN***

No AA?! Surely not!

Someone told me that this year will be the last year to buy Amstrad games. Does this mean there will be no Amstrad Action next year? Is this person just trying to get me to buy a new computer? What should I do? Should I sell my Amstrad and buy a new computer or should I keep my Amstrad?

Simon Buckley (aged 8)
Birmingham

It's certainly true that there are less games about than there used to be and that there will be fewer in the future. It's also true that consoles and 16-bit computers are taking up most of the big programmers' time and that with the advent of cheap(ish) 32-bit machines from Commodore and Atari there is less of a market for us 8-bit types.

But what do you want your computer for? If you want to learn about the basics of computing, do a bit of word-processing, maybe a little Desktop Publishing, and then play a few neat little games your Amstrad will serve you well.

I can't make any guarantees about the availability of software, but AA will be here for as long as you and all the other CPC owners are interested. ***TN***

Beard Fan Club

While reading AA issue 89 I saw an advertisement saying that Cheatmode II was available free with subscription. Is Cheatmode II (the book and tapes) still available for sale?

Oh, and is there a Rod Lawton's Beard fan club? It has generated a lot of interest among my friends who read AA.

Phil Dawson
Doncaster

The Cheatmode II book is still available for the princely sum of £9.99 (see page 34 for the address and stuff).

And Rod's beard? 'Interest' is a funny old word, isn't it? We prefer 'amusement', 'horror', or 'utter disbelief'. None of us has ever been 'interested' in Rod's beard and as far as I'm aware there are no plans for it to be the subject of any sort of fan club. Sorry. ***TN***

Competition Addict

My husband bought me an Amstrad 464 Plus for Christmas and also a copy of your magazine.

I am a competition addict and I was wondering if you knew of any programs I could buy to help me store my competition details. The main details I want to log are: closing date, what I had to do to enter (ie three questions etc), who I sent it to, the slogan I used (if one was needed), and what the prize was.

I hope you or one of your readers will be able to help me.

Mrs E jones
Coventry

I can, actually. What you need is a database program. You use it like a computerised card index and most of them allow you to design and file the 'cards' exactly as you want them. So you could have them filed in closing date order, or alphabetically by the name of the company you sent them to, or anything else you choose.

There are plenty to choose from, but it just so happens that on the issue 72 covertape there was a program that'll do just exactly what you want. There's an order form for back issues on page 34. Let us know how you get on. ***TN***

Cheap Code

Could you please, please, please answer this question: What is the best not too expensive way to learn machine code and do all these demos and things? And don't say the AA machine code series! (Curses. – Act Ed) And yes I do already know BASIC 1.1.

Jonathon Lewis
Bury St Edmunds

Of course, Simon will be upset if I don't mention that he's writing a beginners' course in machine code (and unless you skip straight to the letters page you'll have already read it). But if that's not enough then he also recommends a series of booklets by Pipeline that'll sort you out good and proper. And there's even a review with full details back there on page 58. Don't say we never do anything for you. ***TN***

I'm still waiting

Help please!

I am eagerly awaiting *Street Fighter II* on disk. Any ideas when it will be available?

Rob Steele
Barnsley

We're eagerly awaiting it to, Rob. There have been 'unforeseen problems' which have delayed its production but we'll keep you informed. ***TN***

The depths of despair

As I was reading issue 89 of AA, my whole life plunged into despair. My reasons are as follows:

1. Why did you let Rod go?
2. Why does the strange Jonathon person hate 3in disks? Did he have a nasty experience with one as a child?
3. *Wriggler* on the covertape was crap.
4. Why do you always print those annoying letters asking what you should call Amiga owners and people like that? It is very annoying to read.
5. My friend James owns an Amiga and keeps telling me my Amstrad is crap. What should I call him? Ho ho ho, how side-splittingly hilarious.

Darren Frankland
Whitby

1. We didn't want to let Rod go but he tunnelled his way out in the night screaming 'Free at last! Free at last! Thank God Almighty, I'm free at last!' He's still in the building somewhere, though, so

you might see his name about the place from time to time (though not, we hope, his beard).
2. Everyone hates 3inch disks. They hold precious little data, cost a fortune, and you can't find them anywhere. They were a Bad Idea.
3. Oh dear.
4. We're not going to print them any more.
5. Well, I call my Amiga-owning friends all sorts of things. There's Mark, Stuart, Tim, Jonathan... get the picture everyone? I think 'James' would be good. Or how about 'Jim' or 'Jimmy'? Ask him and find out what he'd prefer to be called. ***TN***

Tear it up

I have been taking AA for about two years now and enjoy it immensely, but I'm afraid I must complain about the tape you use to stick the covertape on with. I keep all the mags and like to keep them in good nick, but I frequently lift the surface off the front cover (and back cover) when trying to remove the tape. I don't know if there is a solution to this but it is very annoying.

T Walton
Manchester

We'll see. But why not just cut the covertape off and leave the sticky tape behind? ***TN***

Foreign subs and stuff

I would like to query your subscriptions offer. In the most recent issue of AA I have (AA86, Nov '92) the subscriptions coupon states 'this coupon is valid until 30th november 1992'. this is of no use to me as when I buy AA from local newsagents they are usually a couple of months late so that all the advertisements are out of date. So, is it still possible for me to subscribe to my favourite computer magazine, Amstrad Action? And, if so, do you accept payment by foreign money order?

Also, will the Datel Electronics 64k memory expansion work on my CPC664?

Matthew Berg
Masterton, New Zealand

Yes, you can still subscribe. Our subscriptions people tell me they accept the vouchers from overseas even though they're a little bit out of date (not too old, though). They accept International Money Orders (in Sterling only), Visa or MasterCard.

And the memory expansion will work. ***TN***

I borrowed it

I have borrowed AA88 and I think you'll be pleased to know that I am going to buy it now, and I have a few questions.

1. I typed in the beginning of one of the type-ins (BLOCKS by S Clark) and on line 30 it says 'NEXT missing in line 30', but in your totally ace mag, line 30 doesn't have a NEXT in it. As I'm no expert, please could you tell me what happened.
2. Please, please, please could you tell me if there is a light gun for the CPC464 and, if so, how much it costs.
3. And lastly, please tell me where I could part-exchange a green monitor for a colour monitor.

Justin Hemming
Milton-Under-Wychwood

1. No, there's no NEXT in line 30. The NEXTs are in line 40. There's no space to explain it all properly here, but using the commands FOR and NEXT you set up little loops where the computer does something a set number of times. The FOR bit tells it where to start and how many times it's got to do it. The NEXT bit tells it to go back to the FOR bit if it hasn't done it enough times yet. Try this:

```
10 FOR a=1 to 10
20 PRINT "wibble"
30 NEXT a
```

It prints "wibble" ten times.
2. Yes. The Trojan Light Phaser. It costs £34.99 (or less) from the Trade-In Post. We reviewed it in AA89. It's fab.
3. Er... anyone, anyone? ***TN***

Meanwhile, in Ireland...



I have been the proud owner of an Amstrad 6128+ since Saturday 12 December 1992. I have a hoard of info, cheats, codes, comments and questions:

1. A friend of mine, Stephen Slattery, bought the compilation *Take 3 Sports* (the one with *Steve Davis Snooker, Pool, and Darts*). It clearly states that side two is blank, but in fact it contains a complete screen designer program. It has to be hacked a little to access it fully, but what I want to know is, does everyone with this disk have that program or is he just extremely lucky?
2. I finished the totally brilliant *Titus The Fox* in 12 days, when will there be a sequel? (I also think it's at least ten times better than *Lemmings*.)
3. My record for beating the South in *North And South* is two months (Jan – Feb 1871). Can anyone beat that?
4. Before I bought a CPC I owned an Atari 130XE which also uses BASIC. Will the BASIC programs from the Atari run on the Amstrad and vice versa?
5. On page seven of AA89 there is a picture of *Tir Na Nóg*. You've translated it as 'mountain stream'. Anyone in AA who has studied the Irish language will know that this refers to an ancient Irish myth and it actually means 'country of youth'.
6. Have 6128 games really stopped being made?
7. Is a *Multiface* really only useful for accessing POKEs and cheats?
8. If the PC bit of CPC stands for Personal Computer, what does the first C stand for?
9. Is there any way to adjust the sound level on the headphones when they're plugged into a 6128+?
10. (Snip. – Ed)

Brendan Rice
Myshall, Eire

In fact, Brendan actually wrote another 243 questions, comments and general chatty stuff. Thanks, Brendan, but we couldn't fit it all in. Oh, and we'll be printing some of your cheats and codes in a later ish. As for the questions:
1. We've lost our copy so we don't know if we've got said screen designer. Anyone? Anyone?
2. There are no plans for a sequel to Titus The Fox on any format. Oh, and if I wrote a book entitled 'A Very Big List Of Things That Are Better Than Lemmings', I'm afraid Titus The Fox wouldn't be in it. At all. Not even in the Appendix.
3. Generally we're not interested in how quickly people can finish games, but I liked this because I love the idea of the American Civil War being set in the 1870s. There's obviously something they're not telling us.
4. Mostly, but details of colour and sound will have to be changed.
5. Oh dear. Sadly none of us has ever made a study of the Irish language (although I have read an English translation of The Táin). That'll teach us not to be so smug.
6. No.
7. No. You can use it for freezing games and saving your position. We use it to take the pictures of games for the magazine.
8. Colour.
9. No.
Thanks Brendan, you're a star. ***TN***

Control freak

Might I first say how fantastic, useful, brilliant, and intelligent your mag is. *(All right. – Act Ed)*

Now onto a slightly more drastic topic. My friend (who will remain nameless) owns a CPC6128 and has decided to sell it and buy an Amiga. He also owns a lightpen, ROM-box, 3.5 inch disk drive, VIDI, a Multiface II and loads of software. If he sells it all he still won't have enough for an Amiga. Blah, blah, he says the Amstrad's rubbish, blah blah *(I've edited this a little bit. – Act Ed)*

How can I stop him?

Christopher Deighton
West Horsley

Why do you want to stop him? What's it got to →

do with you? Leave him alone and don't be such a fascist. ***TN***

Slipped disc

Why is it when I try to transfer programs from the covertape to disc that I only get the type-ins and utilities and never the main game and sometimes any of the other games. The main menu transfers and that's all, and when you select a game from the menu all that happens is the screen goes blue and the word "loading" comes up and then nothing. I've tried different volume levels but no joy. It's not just the occasional tape but all of them. Have you an answer?

Also how do you erase programs from disc when not required (apart from formatting?

A Ward
Kent

To transfer the covertape stuff to disc, it's best to use the 'Transfer To Disc' option from the main menu. Also, make sure you're on side one of the tape. If that doesn't work, we're at a loss as well. Has anyone else had transfer hassles?

If you want to erase unwanted files from a disc, use the following: `|ERA,"filename.ext"` *replacing the 'filename.ext' with the file you want to erase.* ***SF***

GPaint print probs

I bought a CPC664 about 12 months ago, and have been buying AA for about ten of these. I would like to say that I'm also a novice at it all. Could you please answer me three questions;

1. Why can't I get *GPaint* to print out, even after putting the AA86 files with the AA80 one's on the same disc. I have a Citizen 120D printer, has this anything to do with it?
2. Will the DIY project next month (464+ to 6128) work on my computer and if not how can I get it to fit?
3. Why is the 664 never mentioned in the mag? People go on as though the 6128 was the only Amstrad with a disc drive. Looking forward to your reply and to the mag.

R.A.Unreadable last name

The fact you have a Citizen 120D printer might well have something to do with it. Try fiddling with the appropriate dip switches (see your printer manual) to set the printer to accept Epson codes.

The DIY project won't work on your 664, as it's only for the Plus machines. Getting it to work on a normal CPC isn't something we'd advise, so I'd wait and see if we cover it if I were you.

The reason the 664 is never mentioned in the mag is because the phrase "6128 and 664s" is a lot more long winded and dull than "6128s" or even "disc machines". And, of course, you're about the only person we've even met who owns one! ***SF***

Lost in RDII

Could someone tell me where levels four and five are on *Rick Dangerous II* (budget version)? If there are no levels four and five on the tape please print this letter because thousands might buy this game and find out that there are no levels past level three.

Am I the only one with lost levels? Please Investigate!!!

Matt Gleaves
Essex

The extra levels on RD2 only show up on the menu screen when you've completed the first three. When you've completed the fourth, the fifth will appear on the screen. Beware though, as you must complete all three levels starting at level one, in one go (don't select level three to start with) before you can progress. ***SF***

More type-in thefts

Ooops, looks like another one of those naughty, ripped-off type-ins slipped through the net.

The enclosed pages are from a book entitled "Amstrad Games Book" published by Melbourne House. They contain a very familiar program that appeared in AA86 and on the AA88 covertape. (He's right. – Ed)

Tut tut, a tad naughty methinks Mr Hey of Pudsey. At least it saves me having to type it in.

James Banyard
Sandwich

Really, this is getting beyond a joke. That's the last person to get away with it. Reproducing other people's work, especially when it's copyrighted, and palming it off as your own is a criminal offence. The very next person to pull that stunt again gets his name faxed to various organizations who may or may not choose to prosecute. Perhaps that'll stop this tripe. ***TN***

Multiface confusion

I have a 6128+ fitted with a Multiface 2. I also have *Lemmings*, but I find that *Lemmings* will not load with the Multiface connected – all I get are white flashes.

Being a newcomer to computing, am I doing something wrong?

Congratulations on your mag – most interesting and informative to us novices.

C Hawthorne
West Bromwich

Well, C, (don't any of you chaps have first names? I thought we were friends) thanks for the nice comments – at least we're doing something right.

The Multiface 2 won't work with all games. If the game uses more than 64k of memory (as Lemmings *does) then the magic box won't know what's going on and will, to use the vernacular, throw a wobbly. So you'll just have to disconnect the Multiface when you want to play* Lemmings. *After all, you don't need any of the fab things the Multiface has to offer to play it – it's a puzzle game with passwords where the fun is in solving the puzzles, and none of us can think of any reason to hack into it.* ***TN*** ●

Where's Tony Hancock when you need him?

In reply to the letter in AA89 from Harry M C Hall about Amateur Radio programs for the Amstrad.

Several years ago I bought a Morse tutor and Morse reader program at a rally from G4OIK/G4OIL (you can find his address in the Call Book) *(That's the Radio Amateur call book thing where they put all their callsigns and stuff. – Act Ed).* I use the Morse tutor program quite a lot as I'm trying to get my Morse speed back up again after a 12 year lay-off.

As far as the other comms programs are concerned – try the 'Communication' part of *Mini Office II* from Database Publications. You can configure to almost any protocol but you will need an RS232 interface.

G4UXD advertises comms software in Radcom (the Radio Society Of Great Britain's magazine), as does G4TYF, not only for PCs, but for 'BBCs etc' which may include our Amstrads.

By the way, if you had printed Mr Hall's callsign I could have contacted him direct, either by letter or on the radio.

Keith J M Newman G4CZA
St Albans

There are quite a lot of Amateur Radio related programs available for the Amstrad. I would suggest that he write to G4RGA with an SAE and he'll supply a list.

Philip J Powell G3EFI
Bolton

Richard Wilmot (GW3RR1) might be able to help, as can J&P Electronics of Kidderminster (0562 753893) who supply RTTY receive only software for the 464/6128.

Richard A Alonzo *(Great name. – Act Ed)*
Birmingham

Thanks all, I think that should sort Harry out. And why do you chaps insist on using your middle initials? ***Timothy E Norris***



"They can keep their Mona Lisa, give me the inside of a wireless set any day."

DJ Puff

Codemasters ■ 0926 814132 ■ £3.99 cassette

Is it a bird? Is it a plane? Is it a device for applying make-up to radio presenters? No, it's, er... well it's a cute platform game, actually, as Simon Forrester found out.



Press fire, it says, to start. Or don't, if you don't want to. It's your game after all.



Trouble with the natives on Easter Island (or somewhere that looks suspiciously like it).

How to create a top selling piece of software: Rule one – make it cute. Rule two – make it bouncy. Rule three – give it a nice meandering title tune. Okay, it's easy to make digs at *Dizzy* and the like but all this cute stuff is getting a little tired now, isn't it? So, what are we left with? Cutesy graphics aside, how does this latest offering bear up?

The plot is irrelevant. There's a dragon called DJ Puff who wanders around a magical land stuffed full of various other strange cartoony things. No... don't turn the page *(I hope you're going to get a tad more descriptive, my lad, or it's the Job Centre for you. – Act Ed)*, at least hear the game out. As for the format, it's a bog-standard platform adventure, with very little to do except jump around and kill things (but then that's what you do in bog-standard platform adventures, isn't it?)

There's always a few immortal points that make a game worth buying and there are always areas that can make even the most hardened cutester throw up. *(And what exactly, pray, is a 'cutester'? – Act Ed)* Maybe that is a bit strong, as *DJP* isn't that bad, it's just so irritating.



DJ Puff as The Wild One – Marlon Brando doesn't really have anything to worry about.

Picture this... you're a happy little dragon, making your happy little way along a platform, when this friendly looking snail ambles up. 'Hello,' you say. 'Die!' replies the snail, and throws a bomb at you. You die. That's not very nice, is it? What happened to cute? Just how cuddly are we talking here? So niggle number one – why isn't there anything friendly in these games?

Niggle number two – apologies to whoever coded this game (I hope he's not a pro boxer), but it has to be said that it's not brilliantly stapled together. Collision detection is a nightmare. All objects have square fields around them, meaning you can't judge any jumps. Breathing fire also seems a bit of a problem, because DJ only seems capable of firing these little white yins. *(Or 'yangs' as we like to call them. Yins are the dark ones. – Pedantic Act Ed)*

Life isn't all bad though... DJ is quite controllable, and though falling is a bit too slow for comfort, DJ's responses to your waggles are really quite good. He can control his falls, breath fire in mid air, and land quite expertly on platforms (for a dragon).

On the whole, you'll probably enjoy *DJ Puff*, but niggling gripe number three might mar it a little: it's way too easy to die, and you'll never get the hang of obstacles. You'll find yourself dying over and over again on stuff you managed to complete the first time you played. The Acting Ed's thinking of billing me for all the monitors I put my head through in anger while playing it.

All in all, though, you'll almost certainly enjoy this game because it's got some lovely effects, an absolutely huge playing area, and a nice variation of cute baddies.

But you'll have to get over the initial obstacles of some quite sloppy programming before you can really start enjoying the finer points of *DJ Puff*. It's just such a shame it's been so poorly programmed – if it had received a little more attention, it might have made the grade as another mediocre cute game. ●



This pointy chap means you harm. For some ineffable reason he chucks mines at you.



DJ and his buck teeth meet a spider and one of them will die. Why can't they be friends?

VERDICT

GRAPHICS — **88%**
The graphics are, as usual, nice and cute.

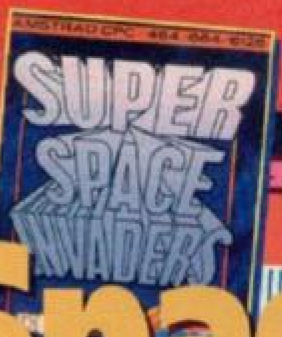
SONICS — **60%**
The nice meandering tune tends to grate on the nerves, and there're no other FX.

GRAB FACTOR — **70%**
You'll be reasonably impressed, and reasonable irritated.

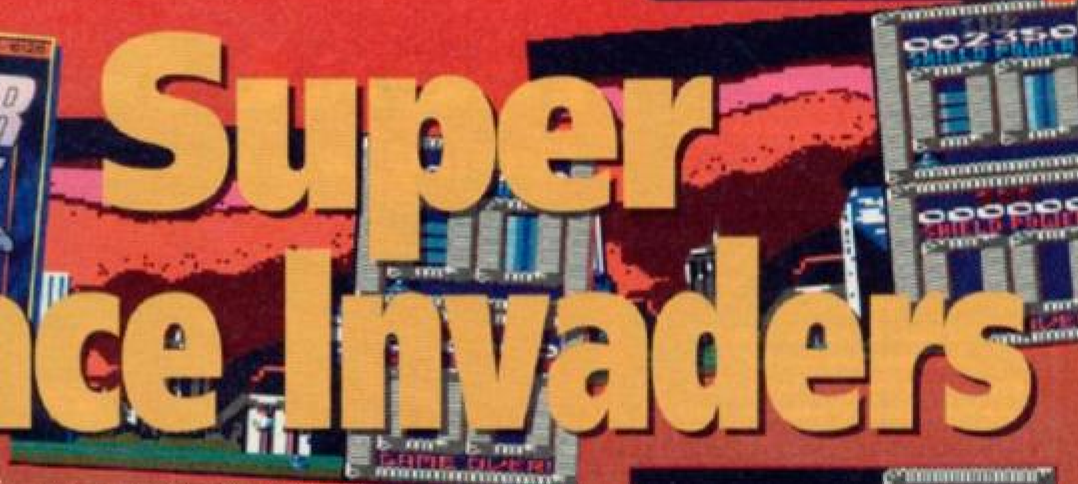
STAYING POWER — **67%**
The initial fascination wears off to reveal tosh beneath the surface.

An average score for an average game. You'll like it, but you probably won't play it that much...

RATING 75%



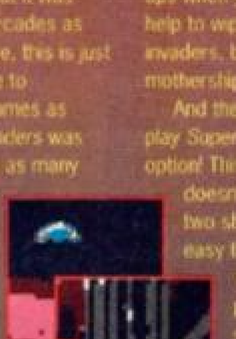
Super Space Invaders



The Hit Squad ■ 061 832 6633 ■ £3.99

Simon Forrester finds a re-vamped classic to invade your space with...

Remember *Space Invaders*? If you don't, then you must have been in a coma from the day you came into this noisy world, but for those of you that do, it might be worth knowing that it was recently updated and placed in the arcades as *Super Space Invaders*. So, in essence, this is just an arcade license. But it'd be a crime to categorise the father of all arcade games as merely an arcade license. *Space Invaders* was THE arcade game. *Sonic*, *Mario*, and as many *Street Fighters* as you care to mention owe their very existence to this game.



So why have they re-released it? What is there to upgrade? Wouldn't it ruin the basic simplistic beauty of the game? That all depends what you add. Allow the invaders to use attack formations, and you've got *Galaxians*. Turn the invaders into asteroids and you've got, erm, *Asteroids*. But we haven't, it's still space invaders, and I still refuse to sit here and explain how to play *Space Invaders*.

Super Space Invaders is to *Invaders* what *Arkanoid* is to *Breakout*. They've added flashier bad guys, some smart extra weapons, and a generally more 'urgent' feel to the whole shebang (through nice backdrops, etc). So if you liked the idea of the changes made in *Arkanoid*, you should enjoy *Super Space Invaders*.

The first thing that hits you is the nice formations of invaders as you progress through the game. At first, there's just the standard shoot-and-they-die set up, but as you get further through, invaders start taking the place of their buddies who've just died. On level three, when you shoot an invader, it 'melds' with the invader next to it, forming an invader twice as large.

The next nice addition to the basic invaders format is the mothership. It still flies across the top, but this time it drops weapons and power-ups when you shoot it. These power-ups usually help to wipe out the great majority of the invaders, but the actual mothership is a bit of a mothership to hit.

And then, just as you thought is was safe to play *Super Space Invaders*, there's a two player option! This can get a little hairy at times, and it doesn't make the game any easier, but the two ships are nicely coloured, so it's fairly easy to tell who's who.

Good graphics make the game nice to play. The movement of the invaders is smooth, and everything runs at a reasonable pace. The missiles that the invaders throw are nice and varied, as are the movements of said alien scum. The artwork within the game is fitting of the quality of the game concept, and complements the game rather than smothering it.

The sonics are a nice representation of the old style stuff, but with a slight leaning toward the 1990s, and as such are a tad more polished. They're along the same lines but a bit more fun, and, if my memory serves me correctly, the original Invaders didn't have music.

Whatever your tastes, you can't help but enjoy this game. *Space Invaders* was the foundation for nearly everything you'll play nowadays, and *Super Space Invaders* works very well as an up-to-date representation of a classic. ●



They've certainly re-vamped the backgrounds. This looks much better.

Updates...

Now... You may think that your software collection contains some pretty sophisticated concepts, but it may interest you to know that all nearly every game you can mention is just an upgrade of the standard racing games, tennis games, breakout games, space invaders, and text adventures. Look out for a feature type of thing in future

VERDICT

GRAPHICS — 87%
A nice smooth update, with atmosphere and style.

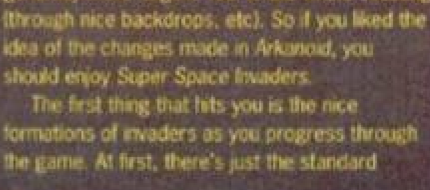
SONICS — 84%
Fun sounds and a nice tune complement a good game perfectly.

GRAB FACTOR — 90%
If you fail to be grabbed by *Super Space Invaders*, then there's something wrong with you.

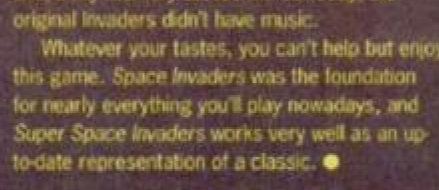
STAYING POWER — 80%
The essentially limited concept does wear thin in the end.

A nice fun game that does the original a great justice.

RATING 88%



Gee, Ma, look at all the pretty options. I'll bet you can do all sorts in this game.



There's something you're supposed to say here. I know, 'Eat laser death, alien scum.'

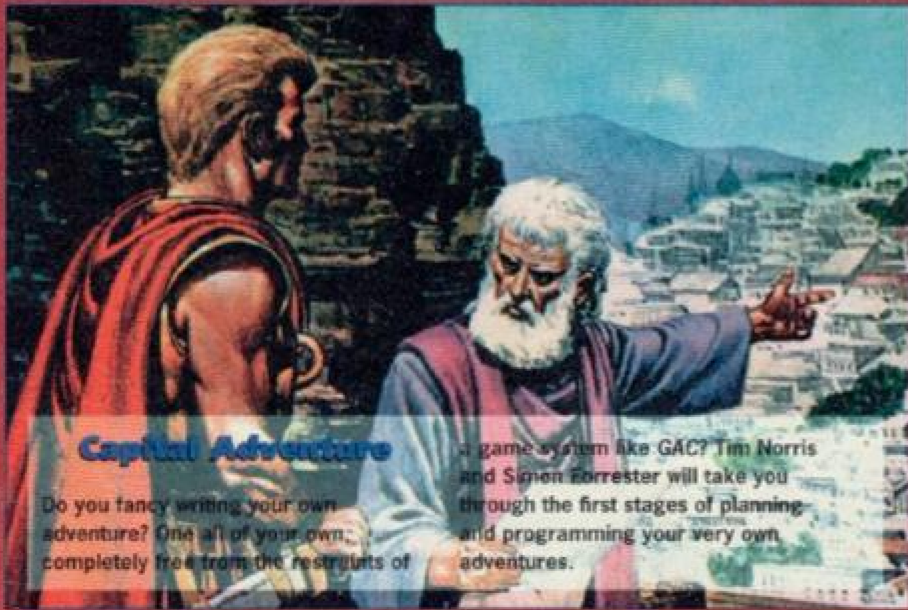
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● **Reader calls:** We regret we have to restrict reader calls to Tuesday afternoons.

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Machine Code (again)

Simon Forrester drags you kicking and screaming into the murky depths of your CPC's memory in an effort to teach the programming of games.



Even More Upgrades

How much more can we change? Now the 464 Plus owners have had their fun, it's going to be the turn of the 6128 Plus owners who finally get that remote control for their tape drive. Hurrah.

Street Fighter II

No, really, it's on its way (at least, we think so). Actually, there's no real way of telling whether the world's most popular beat-'em-up will arrive in time for our next issue, but we're optimists and we *believe* it will. Here's hoping.



Street Fighter II – coming soon to a CPC near you.

And of course there's more... There's Technical Forum, Reaction, Balrog, Public Image, tea, coffee, Høb Nøbs (that's Swedish for Hob Nobs), smiles, laughter, information, comment and another great covertape.

Soundtrakker

Do you have a musical bent? *(That's a rather personal question. – Act Ed)* If you have, then make some noise with this new music utility. 'Ah, but is it any good?' you ask. Well you'll just have to wait and see, won't you?



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All prices include a cable, ribbon, VAT, postage & packing. A courier delivery service is available, just add £5.00. Using a colour printer with the Amstrad CPC requires additional software.

FEEL FREE TO CALL FOR ADVICE

THE MJC COLOUR PRINTING PACK

All you need to start designing and printing colour pictures on your Amstrad CPC 6128. This is a complete package and does not require any additional cables or software. The software supplied will only run on the 6128 or 6128+

PACKAGE CONTAINS:

Star LC-100 Colour Printer
Colourdump 3
Advanced Art Studio
Parallel Printer Lead

NORMAL PRICE £223.80

MJC PRICE £199.95

9 PIN PRINTERS

STAR LC-20

Star's new replacement for the popular LC-10 is sure to be a winner

MJC Price £159.95

PANASONIC KXP-1170

Replacement for the very popular KXP-1180. Still offers 4 NLQ fonts and fast printing. Very good quality text for a 9 pin printer

MJC PRICE £159.95

***NEW* - STAR LC-100 COLOUR**

The new budget 9 pin printer from Star. 8 NLQ fonts, 180 cps in draft mode and 45 cps in NLQ. Paper parking with push feed tractor. Excellent value for money.

MJC PRICE £189.95

24 PIN PRINTERS

When printing graphics from a 24 pin printer the results will be distorted without using some extra software. Please call for advice before ordering.

STAR LC24-100

Star's new 24 pin mono printer. 192 cps draft and 64 cps LQ. 10 Letter Quality Fonts

MJC Price Only £199.95

PANASONIC KXP-1123

Panasonic's entry level 24-pin printer. Offering a better print quality than the Star models, but with 4 LQ fonts and fewer effects

MJC Price £219.95

VISA Access **Card holders can order now on: 0462 481166**



NOW A TOTAL MOUSE/ GRAPHICS PACKAGE FOR YOUR AMSTRAD AT A TRULY UNBEATABLE PRICE!!





Genius Mouse COMPLETE WITH OCP

SPECIAL OFFER PACK!!

- **Genius Mouse is a high resolution two button mouse featuring optical counting, teflon guides, microswitches, rubber coated ball and high quality interface.**
- **When combined with OCP Advanced Art Studio this graphics package is quite simply the best system available. The features are unmatched...**
- Create an image - shrink it, expand it, move it, rotate it, copy it, colour it, etc., etc.
- Spray patterns or shades, make elastic lines - stretch and manipulate shapes.
- Zoom in to add detail in fine mode. • Full cut and paste facilities plus excellent printer support.
- Pulldown/Icon driven menus for ease of use. • Mouse operation, plus joystick and keyboard control.
- 16 pens, 8 sprays, 16 brushes - so flexible anyone can create superb graphics easily.

TAPE OR DISK FOR 464 OR 6128 (PLEASE STATE WHICH REQUIRED) N.B. 464 NEEDS DK'TRONICS 64K RAM PACK

COMPLETE WITH MOUSE INTERFACE



- The Genius Mouse Graphics System comes complete with the special Mouse Interface to allow super smooth control.
- Attractively styled to match your 464 or 6128 design and colour. Simply plugs into Expansion/Joystick port.

ONLY £49.99

TOTAL PACKAGE INCLUDES GENIUS MOUSE, INTERFACE, OCP ADVANCED ART STUDIO PLUS FREE MOUSE MAT AND HOLDER

FREE! MOUSE MAT AND MOUSE HOLDER (WORTH £12.99) WITH EACH PACKAGE



NEW

LC 200 COLOUR PRINTER PACKAGE

NOW YOU CAN PRINT OUT YOUR PICTURES IN FULL COLOUR!

- The Star LC200 Colour Printer not only prints in Near Letter Quality for your regular jobs but also prints out your pictures from Art Studio, etc., in genuine colour!
- LC200 is a full Centronics printer so it works with other computers (Amiga, ST, etc.).
- Made possible by Datel's unique colour printer driver - now you can have a hardcopy in up to 16 colours!! • No more to buy - just plug in and print!!

PACKAGE INCLUDES... STAR LC200 COLOUR PRINTER RRP £299.00
CENTRONICS PRINTER LEAD RRP £9.99
DATEL COLOUR PRINTER DRIVER SOFTWARE RRP £19.99
NORMALLY £327.98

COMPLETE PACKAGE NOW ONLY £239.00

COLOUR PRINTER DRIVER AVAILABLE SEPARATELY ONLY £19.99

- If you already have an LC10 or LC 200 Colour Printer we can supply the Driver separately.

dktronics



64K MEMORY EXPANSION

- Simple plug in memory expansion gives instant extra memory.
- Features bank switching software for easy use by the programmer or for use as a data storage area.
- Ideal for use with the CPM 2.2 etc.
- The software also features some extra BASIC commands.
- 64K unit expands 464 to 128K.
- 64K unit brings 464 up to CPC 6128 memory configuration making a much larger software base available. Will work straight off with many programs designed for this unit (including OCP Art Studio - see Ad.).
- Bank switching done automatically by software (cassette 464).

ONLY £49.99 64K FOR 464

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HOW TO GET YOUR ORDER FAST!

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